(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
13 September 2001 (13.09.2001)

PCT

(10) International Publication Number
WO 01/67365 A1

(51) International Patent Classification[7]: G06F 17/60

(21) International Application Number: PCT/US01/07921

(22) International Filing Date: 9 March 2001 (09.03.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

09/522,133	9 March 2000 (09.03.2000)	US
09/656,260	6 September 2000 (06.09.2000)	US

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(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 01/67365 A1

(54) Title: PROVIDING INTERNET SERVICES TO AUTOMATED TELLER MACHINE

(57) Abstract: A system and method provide customized, Internet enabled informational and transactional services via an Automated Teller Machine (ATM). A myriad of services, such as real time stock quotes, e-mail forwarding, weather information, directions to restaurants and movie theatres, customized advertising, and the ability to execute web-based transactions with or without a bank card, are made available via the ATM. By tapping into the vast ATM network, the ATM can be used as a delivery point for a variety of information available on the World Wide Web as well as being used as an Internet access device. The system and method also enable a consumer rewards program, wherein redeemable points can be allocated to users to offset ATM transaction fees, for example.

PROVIDING INTERNET SERVICES TO AUTOMATED TELLER MACHINE

BACKGROUND OF THE INVENTION

This invention relates to the expansion of the functionality of Automatic Teller Machines (ATMs) to include Internet enabled informational and transactional services over the existing Electronic Funds Transfer (EFT) network of the ATMs.

Current ATMs are limited to performing financial transactions and vending machine type functions such as dispensing stamps, bus tickets, or concert tickets. A publicly accessible ATM site or device is presently part of a closed EFT network, which prevents the ATM from being a distribution point for a wealth of information and non-banking services that are now available through the Internet. Banks, therefore, are unable to provide independent interactive and custom non-bank services that match the consumer preferences and profile. Personal Digital Assistants (PDAs) and wireless communication devices such as cell phones that do have the capacity to access the Internet and provide some of the above services require an initial capital outlay in procuring the device, and users are assessed additional fees based on usage. It would be desirable to provide remote Internet access through ATMs so that individuals would not have to carry personal remote access devices and incur the costs associated with them. It would also be desirable to enable such ATM access to other customized services that may be tailored towards the personal preferences of the user.

Current ATMs are rendered useless unless an access card is inserted in the card reader. Accordingly, it would also be desirable to make at least non-bank services available even without the use of such a card.

There is also the need to mitigate costs and the negative impact of ATM transaction fees. Presently, when a user attempts to conduct a transaction on an ATM machine owned by an independent service provider or by a "foreign" bank (i.e., a bank other than the bank where the user has his or her bank account), the user is presented with a screen that discloses the fee that is charged by the ATM/bank to complete the transaction. The transaction costs can range, for example, from $1.00 to $3.50 in some instances. The disclosure message usually takes the form of, for example, "*The owner of this terminal charges a fee to US cardholders of $1.50 for withdrawing cash if the transaction is performed using a card that was not issued by the owner of this terminal.*

This charge is in addition to any fees that may be assessed by your financial institution. This additional charge will be added to the transaction amount and deducted from your account. Do you wish to proceed (Y/N)?" If the user accepts, the transaction is completed and the fee is debited from his or her account. If the user rejects, the machine ends the transaction and ejects the user's card; the user must then find a "friendly" machine that does not charge a transaction fee if the user still wants to withdraw money. Therefore, in the current automated banking environment the user is only presented with two (2) options: accept or reject. It would be desirable to enable such ATMs that charge fees to present the user with additional options.

SUMMARY OF THE INVENTION

The present invention meets the aforementioned needs by providing a novel and improved personalized publicly accessible communication system and method, especially one using ATM devices.

A secure Internet website is used to collect user specific personalized information. This information is delivered to the customer on demand via the EFT (electronic funds transfer) network in which a plurality of ATM devices are connected, and which network may be directly connected to the information resource or may use an Internet gateway. Business intelligence software resides on the secure website's server, referred to as the Extended Services Server (ESS), and pushes personalized information to a user at an ATM site on demand (preferably in a format that makes the delivery of such information most efficient).

In a particular implementation, the Internet gateway translates the data from the ESS in XML format into EFT message format for transmission over the EFT network to the ATM client. Similarly, the gateway also decodes messages received over the EFT and requests the data in XML format from the ESS. The protocol for transmission may be any of the secured encrypted standards such as HTTP over Secure Socket Layers or any other TCP/IP based protocol between the gateway and the ESS. The protocol for the EFT network is preferably that which is standard or conventional for the respective EFT network. The ATM host is configured to forward Internet related requests to the gateway. The ATM is equipped with software that performs normal bank transactions in addition to requesting and displaying information from the server.

By creating a website that is linked to a vast database, users can input their profiles and define their preferences for information, and the ATM can then be used to

deliver the personalized information needed without the need for browsing. By pre-configuring the data at the website, the time taken to deliver the additional services beyond banking to the ATM is significantly reduced. The exact parameters of the delivery, whether to print or display, when, and how, can all be pre-set on the website, thus resulting in less keypunches, thereby reducing the time spent at the ATM. A bank can offer the expanded services in a seamless manner by linking the bank customer to the Internet based database of profiles and preferences. An independent operator can provide these services by establishing alliances with banks or networks and linking the customer bank accounts or bank identification to the independent Internet based database of profiles and preferences. A customer can therefore be identified and delivery of the extended services can be performed in a seamless manner. Furthermore, the present invention enables a customer to obtain service even without the customer having to use a tangible access card at the ATM site.

Accordingly, the present invention provides a personalized publicly accessible communication system comprising: an ATM system having a plurality of publicly accessible ATM ports; and a global communication system connected to the ATM system, the global communication system including an Internet website providing a database into which a plurality of users input personalized data for use through any of the ATM ports. The global communication system may further include third-party sites accessible by the Internet website in response to communication by a user to the Internet website from any of the ATM ports.

The present invention also can be defined as a method for providing, to a user, personalized communication via a publicly accessible communication network, comprising: providing on the Internet a website having a database for receiving personalized data for a user; communicating the website with an ATM system having a plurality of publicly accessible ATM ports; and operating the website to use at least selected portions of the personalized data in response to input received by the website from any of the ATM ports operated by the user.

Another definition of the present invention is as a method for a user to conduct personalized communications from an ATM site, comprising: inputting, into an identified-user record at a predetermined Internet website, personalized data for an identified user; and operating a public ATM device to access the Internet website and to cause at least a portion of the personalized data to be used, including entering identifying

information about the identified user at the public ATM device and automatically retrieving to the ATM device information responsive to validated entered identifying information and at least a portion of the personalized data in the identified-user record.

The method can also be defined as further comprising operating the website to allocate redeemable credits for the user in response to the user operating a respective ATM device or port. Relatedly, the method may further comprise operating the public ATM device to display an option for the user to select to obtain redeemable credits for a transaction fee charged to the user for using the public ATM device.

Providing redeemable credits, or points, to ATM users enables enhanced use of ATM devices. This aspect links ATM transactions to consumer rewards whereby ATM users can earn points for ATM transactions, which can be immediately or subsequently redeemed for products and services (or donated to charity, for example), and whereby ATM users can access information and services on a global ATM network. Rewards and other activities can be tailored or targeted to the users based on user profiles they have personally entered or authorized. Such features can produce revenue and information (e.g., one-to-one marketing information, local micro-marketing, product testing, etc.) streams among advertisers, banks, and website managers; and they can provide value to ATM users as indicated above. They can produce additional revenue streams from consumers for additional goods or services purchased by the consumers. These features also enable targeted advertising to ATM users. The invention may strengthen the value of an ATM network, for example: it may increase the number of "foreign" and other ATM transactions for which fees are charged; it may mitigate negative consumer relations by providing additional value for the ATM transaction fees charged; it may retain customers; it may provide advertising revenue streams to the ATM network; it may be used to induce customer to use more ATM transactions and fewer teller transactions, thereby reducing costs to the ATM network.

In the just-mentioned context, the present invention provides a method of enhancing computer-implemented commerce, comprising: maintaining a computer site connected in a computer network including a global computer communication system; and responding in the computer site to consumer-selected seller-defined events, including allocating redeemable credits to a consumer having an account at the computer site and selecting at least one of the seller-defined events. More particularly, it provides a method of mitigating transaction costs to a user of a commercial computer network, comprising:

maintaining a computer site connected in a computer network including a global computer communication system and a banking computer system; and receiving and responding to, under control of the computer site, encoded signals representing a banking system transaction made by a user at an access port of the computer network, including allocating via computer processing redeemable credits to the user in response to the received encoded signals. Specifically with regard to ATMs, the present invention provides a method of mitigating transaction costs to a user of an ATM device, comprising allocating via computer processing redeemable credits to a user of an ATM device.

The present invention can be more specifically defined in this context as a method of mitigating transaction costs to a user of a commercial computer network, comprising providing advertiser-based options from a computer site on the Internet to an ATM device, including using data processing to transfer money from an advertiser to the computer site and transmitting from the computer site to the ATM device encoded signals representing options for a user of the ATM device to select with regard to goods or services provided by the advertiser. The method further comprises displaying at the ATM device advertiser-related options in conjunction with a recitation of a transaction fee to be charged for the user to use the ATM device, and the method also includes selecting an advertiser-related option at the ATM device and transmitting from the ATM device to the computer site encoded signals representing the selected option. The method still further comprises: allocating at the computer site redeemable credits for the advertiser's goods or services in response to the transmitted encoded signals representing the selected option; transmitting from the computer site to the ATM device encoded signals representing the allocated redeemable credits; redeeming the allocated redeemable credits for the advertiser's goods or services; transmitting to the computer site encoded signals representing redeemed allocated credits; compiling by data processing at the computer site marketing information in response to allocated and redeemed credits and transmitting encoded signals from the computer site to the advertiser in response to the compiled marketing information; and transmitting from the computer site to the bank having the ATM device encoded signals designating fees paid to the bank from the money transferred from the advertiser to the computer site.

Therefore, from the foregoing, it is a general object of the present invention to provide a novel and improved personalized publicly accessible communication system and method. Other and further objects, features and advantages of the present invention

will be readily apparent to those skilled in the art when the following description of the preferred embodiments is read in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram of a preferred embodiment of a system of the present invention.

FIG. 2 is a block diagram showing an expanded view of aspects of the system shown in FIG. 1.

FIG. 3 is a block diagram illustrating particular data encoding and transmission in the system of FIGS. 1 and 2.

FIG. 4 is a flow diagram for customer registration via a website of the present invention.

FIG. 5 is a flow diagram illustrating a preferred embodiment of a method of the present invention.

FIG. 6 is a flow diagram illustrating a user-authentication process for a preferred embodiment of the present invention.

FIG. 7 is a flow diagram illustrating an extended services process for a preferred embodiment of the present invention.

FIG. 8 is a flow diagram illustrating a more simplified extended services process for a preferred embodiment of the present invention.

FIG. 9 is a flow diagram illustrating an implementation for a lottery selection process shown in FIG. 7.

FIG. 10 is a flow diagram illustrating a cardless transaction process for a preferred embodiment of the present invention.

FIG. 11 is a diagram showing the present invention implemented for performing a method by which an ATM or Internet user can obtain redeemable points or credits for taking actions or responding to inquiries provided through a respective ATM device or Internet website.

FIG. 12 is a flow diagram illustrating the method implemented in accordance with FIG. 11.

FIG. 13 is a flow diagram showing transactional flow pertaining to an implementation of the method referred to with regard to FIGS. 11 and 12.

FIG. 14 illustrates an introductory screen display at an ATM device through which a method of the present invention may be performed.

FIG. 15 illustrates an example of a conventional main menu display at the ATM device.

FIG. 16 illustrates an example of the display on the screen at the ATM device when a transaction fee is to be charged, with the illustrated screen display also showing an added feature of the present invention by which "redeemable credits" are obtained by the user.

FIG. 17 illustrates an example of a display on the screen at the ATM device when the selected conventional financial transaction is being processed, which display can include advertising.

FIG. 18 illustrates an example of a display on the screen at the ATM device to enable the user to access and implement a method of the present invention.

FIG. 19 illustrates an example of a display on the screen of the ATM device, which screen display appears upon selection of the "extended options menu" selection shown in FIG. 18.

FIG. 20 illustrates a display on the screen at the ATM device as one example of what can appear when the "earn redeemable credits" option shown in FIG. 18 is selected by the ATM user.

FIG. 21 illustrates a display on the screen at the ATM device as another example of what can appear when the "earn redeemable credits" option shown in FIG. 18 is selected by the ATM user.

FIG. 22 illustrates a display on the screen at the ATM device as an example of what can appear when the "spend redeemable credits" option shown in FIG. 18 is selected by the ATM user.

FIG. 23 illustrates a display on the screen at the ATM device as an example of how the present invention can be used to induce or encourage cost-saving financial transactions to be performed using the ATM device.

DETAILED DESCRIPTION OF THE INVENTION

The present invention provides a personalized publicly accessible communication system comprising: an ATM system having a plurality of publicly accessible ATM ports; and a global communication system connected to the ATM system. The global communication system includes an Internet website or other networks such as intranets, extranets, or host servers providing a database into which a plurality of users input personalized data for use through any of the ATM ports. The global communication

system may further include third-party sites accessible by the Internet website (or other database host) in response to communication by a user to the Internet website (or other host) from any of the ATM ports. An implementation of the foregoing will be described with reference to FIGS. 1-3 and an Internet site.

In this invention, customers desiring Internet enabled extended services register with an Extended Services Provider (ESP), which maintains an Internet website in accordance with this implementation of the present invention, by visiting the ESP's website and applying for an account. For example, an Extended Service Provider (ESP) can be a public Internet portal (e.g., a known Internet Service Provider) or a more specific or dedicated site having its own domain name. Customers apply for an account in a manner as known in the art such as is currently done on the Internet (e.g., customer identification information, billing or credit card information, etc.). After the account has been set up, customers can then set up a profile and configure how they want information to be delivered to the ATM.

FIG. 1 shows an overview of the customer's experience at the website, where data is configured and stored, and at the ATM where data is retrieved or delivered. The Right Hand Side (RHS) of the flow chart shows user interaction at the website, while the Left Hand Side shows user interaction at the ATM. A customer who signs on for an account with an ESP, as explained above, is assigned an identification number (ID) which is stored in relation to the customer data. The ID is a means of logging, identifying, and tracking the customer and relevant customer data in a database. The customer 100, using a standard web browser 113 logs onto the website of the ESP. Using a Secure Sockets Layer (SSL) connection from the browser to the Web Server 114 (such connection being generally accepted as "secure"), the customer can input, configure, and manage his data delivery preferences for a host of ESP services 115. The input data and delivery preferences, along with the customer's ID are stored in a database 116 at the ESP's website.

As an example, the website may be based upon Java servlet technology and connected to a Postgres database. The user inputs data via HTML forms and transmits the data to the web server 114 typically by "pressing" (clicking on) a Submit button. The data is intercepted by the Java servlets which then store the data after appropriate manipulation into the database, thus updating the user's configuration. Note that the specific software mentioned above can be replaced by many other functionally

equivalent products and technologies (such as Active Server Pages or Perl/CGI to replace Java servlets and Oracle, Microsoft SQL Server to replace Postgres).

At the ATM machine 101, upon insertion of a bankcard, the user can perform standard electronic transactions and access the extended services for which he or she is registered. The bank card can be any standard card that has been issued by any institution to function on the ATM. Moreover, because a bank card is a known means for identifying and verifying the user at the ATM, its details are not relevant to the premise of this system. The present invention is independent of the type of identification procedure used. For example, a card can be replaced by other means of identifying the user. Such means can take the form of, for example, facial recognition, iris scans, fingerprint recognition, or some type of hand held device, completely eliminating the need for cards. The present invention will function equally well in all cases.

The ATM is connected to an array of computer-based ATM Hosts 103 that are connected to the computers of the customer's banking institution 102 in what is currently a conventional and previously known art. Through a computer-based Internet gateway 104, such as developed using Java technology and running on a Linux platform, data from the ESP's website is delivered to the customer through the standard ATM network. The Internet gateway 104 acts as the connection between the bank and the ESP's Application Server 105 (FIG. 2—in which server the gateway 104 function can be implemented by appropriate programming, or the gateway 104 can be separate). Note that the Internet Gateway 104 can be implemented using alternative technology (e.g., C++ and Windows NT). The data delivery mechanism involves the ATM connected to an ATM Controller/Host as is standard practice. This ATM Controller is also connected via a wide area network (WAN) connection (such as frame relay) to the ESP servers. Data to and from the ESP servers can hence be transmitted to the ATMs. Due to baud rate constraints on the ATM network which would cause the user to wait many minutes for files to download to the ATM, certain objects such as graphic files representing logos, icons, advertisements, etc., preferably are stored directly on a harddisk on the ATM machine 101.

When a bankcard is used, the user's authentication information can be retrieved from one of multiple possible locations. The user ID can be stored on the magnetic strip 117 of the ATM card as is currently the practice in the form of the account

number. The user can pre-register this account number via the ESP website with the ESP servers. This allows the ESP servers to identify the customer. Alternatively, the ATM Controller can associate a User ID with the account number on the customer's bankcard and transmit this User ID to the ESP servers which would then look up this UserID in their database (116) to identify the user. Such authentication can also be performed by a third party (119/118).

Referring to FIG. 2, the architecture used to implement the delivery of extended services makes significant use of the existing EFT. This design minimizes additional hardware cost, and easily retrofits into the existing network without compromising network security. FIG. 2 shows the overall system architecture used to deliver the Internet enabled extended ATM services for the illustrated embodiment. The ATM machines 101 are connected to the ATM Hosts 103 which are in turn connected to a host of participating bank computers 102, as is currently practiced by banks and other ATM owners. The Hosts 103 as used in this implementation of the present invention also communicate with the Internet gateway 104. The communication protocol used between the ATM and the ATM Hosts depends on the type of ATM in deployment. For example, for NCR ATMs, the message format is typically NDC or NDC+ utilized with, for example, SNA as the communication protocol. Between the ATM Host and the Internet Gateway, the communication protocol is Internet Protocol (IP) and the message format utilizes XML. The gateway 104 communicates with the ESP's Application Server 105, which retrieves data from database 106 with which an Application Server 107 communicates to input such data. The Application Server 107 has the software running the Java servlets or equivalent technology which allows web server 108 to generate and respond dynamically, through one of the TCP/IP based standards such as HTTPS. The Application Server 105 is connected to the ESP's database 106 (116 in FIG. 1) via a JDBC driver connection. This connection utilizes Java library code for JDBC on the application server 105 and connects to a JDBC driver which is built into the database utilized (for example, Postgres). As previously described in FIG. 1, customers can log into the ESP's website via a standard web browser 113, such as Explorer 4.0 and above, and the Internet 112. The web server 108 is connected to the application server (107 in FIG. 2). The application server is the platform which provides dynamic capabilities to the website. As discussed earlier, this may be implemented using Java servlets technology on a Linux platform or by multiple

other alternatives such as Active Server Pages on Windows NT. The application server 107 is in turn connected to a SendMail Server 109, which provides SMTP and inbound e-mail services. The application server 107 is also connected to various third party services such as Real Time Stock Quotes 110 and the State Lottery Service 111 using a variety of connections which are specific to each service but generally based on an IP communication layer. These third party services provide much of the information content which is distributed to ESP users at ATMs, via transfers from the server 107 to the database 106 and then from the database 106 to the server 105 and out the gateway 104, and these connections allow the ESP servers to obtain the requisite information from these services.

The Application Servers 105 and 107 are kept separate to separate the EFT network from the Internet. This allows for the networks connected to the Internet (via Application Server 107) to be physically distinct and separate from the networks connected to the EFT networks (via Application Server 105).

As mentioned, the ATM or EFT network can be implemented as presently known in the art, but with suitable programming to implement the method of the present invention, which programming can be provided by one skilled in the art based on the explanation of the invention given herein. Programming for the remainder of the system and method of the invention described herein can likewise be provided by one skilled in the art given the descriptions herein and for selected hardware to implement the various other parts of the system (e.g., gateway 104, server 105, database 106, and servers 107-109). Such hardware includes conventional computers known in the art for communicating with the Internet and ATM or EFT networks. One type of such computers includes IBM-compatible personal computers having sufficient processing speed, memory capacity, and input/output ports to implement a configuration as illustrated in FIG. 2. This applies for both the previous explanation and the subsequent explanation of the invention herein.

FIG. 3 shows a particular data encoding and transmission scheme for the Internet enabled ATM extended services between the ATM machine 101, the ATM host 103, the Internet Gateway 104, and the Application Server 105. XML is used between the ATM Host and the Internet Gateway; since this is under control from the gateway, the question of a "new message type" does not arise. Between the Internet

Gateway 104 and the Application Server 105, communication is done in XML over one of the standard TCP/IP based protocols.

The foregoing system may be used in implementing or performing the method of the present invention. The method may be defined as a method for providing, to a user, personalized communication via a publicly accessible communication network, comprising: providing on the Internet a website having a database for receiving personalized data for a user; communicating the website with an ATM system having a plurality of publicly accessible ATM ports; and operating the website to use at least selected portions of the personalized data in response to input received by the website from any of the ATM ports operated by the user. The method may also be defined as a method for a user to conduct personalized communications from an ATM site, comprising: inputting, into an identified-user record at a predetermined Internet website, personalized data for an identified user; and operating a public ATM device to access the Internet website and to cause at least a portion of the personalized data to be used, including entering identifying information about the identified user at the public ATM device and automatically retrieving to the ATM device information responsive to validated entered identifying information and at least a portion of the personalized data in the identified-user record.

The method of the present invention may be further defined in that inputting personalized data includes inputting investment information for the user, with the method further comprising operating the Internet website to obtain current valuation data regarding the input investment information. In such case, automatically retrieving to the ATM device includes retrieving the current valuation data and displaying the current valuation data at the ATM device.

The method of the present invention may be further defined in that: inputting personalized data includes inputting emergency informational data and emergency transactional data; and operating a public ATM device further includes sending an emergency signal from the ATM device to the Internet website. With this, the method further comprises operating the Internet website to perform an emergency task defined by the emergency transactional data in response to the Internet website receiving the emergency signal. Another aspect of such method may be that entering identifying information about the identified user and sending an emergency signal from the ATM device are performed at the ATM device without an ATM access card. Stated another

way, for example, entering identifying information about the identified user and sending an emergency signal from the ATM device include entering identification and control commands at the ATM device through a keypad of the ATM device. In a preferred embodiment, sending an emergency signal includes sending a selected one of a plurality of emergency signals wherein each of the emergency signals defines to the Internet website a respective level of emergency to which the Internet website is to respond.

The method of the present invention may be further defined in that inputting personalized data includes inputting e-mail delivery information for the user, with the method further comprising operating the Internet website to obtain e-mails for the user in response to the input e-mail delivery information. Automatically retrieving to the ATM device includes retrieving the obtained e-mails and displaying the e-mails at the ATM device.

The method of the present invention may be further defined in that: the method further comprises operating the Internet website to obtain meteorological information for the user; and automatically retrieving to the ATM device includes retrieving the obtained meteorological information and displaying the meteorological information at the ATM device.

The method of the present invention may be further defined in that: the method further comprises operating the Internet website to obtain horoscopic information for the user; and automatically retrieving to the ATM device includes retrieving the obtained meteorological information and displaying the horoscopic information at the ATM device.

The method of the present invention may be further defined in that: the method further comprises operating the Internet website to obtain locational information for the user; and automatically retrieving to the ATM device includes retrieving the obtained locational information and displaying the locational information at the ATM device.

The method of the present invention may be further defined in that: inputting personalized data includes inputting transmission recipient information for the user; and operating a public ATM device further includes creating a digital image of the user at the ATM device and transmitting the digital image to the Internet website. With this, the method further comprises operating the Internet website to receive the transmitted digital image and to communicate the digital image to at least one recipient in response to the transmission recipient information.

The method of the present invention may be further defined in that operating a public ATM device further includes sending an entertainment event selection signal from the ATM device to the Internet website, with the method further comprising operating the Internet website to obtain a valid ticket right and effect payment therefor in response to the Internet website receiving the entertainment event selection signal and to transmit signals to the ATM device to cause the ATM device to print a valid ticket in response to the purchased valid ticket right.

The method of the present invention may be further defined in that operating a public ATM device further includes inputting alphanumeric information at the ATM device and transmitting the alphanumeric information to the Internet website, with the method further comprising operating the Internet website to receive and store the transmitted alphanumeric information. This preferably further comprises operating a second public ATM device to access the Internet website and to retrieve at least part of the alphanumeric information stored at the Internet website.

The method of the present invention may be further defined in that operating a public ATM device further includes sending a lottery selection signal from the ATM device to the Internet website, with the method further comprising operating the Internet website to obtain a valid lottery ticket right and effect payment therefor in response to the Internet website receiving the lottery selection signal. This may further comprise: maintaining in a database at the Internet website information about the valid lottery right and the identified user; monitoring from the Internet website results of the lottery; and effecting via the Internet website an electronic funds transfer, into an account of the identified user's, of winnings to be paid to the user in the event the monitored results of the lottery indicate that the valid lottery right is a lottery winner.

The method of the present invention may be further defined in that: inputting personalized data includes inputting informational data and transactional data; and automatically retrieving to the ATM device includes automatically retrieving from the Internet website data responsive to at least a portion of the informational data. This method further comprises operating the Internet website to perform at least one task in response to a signal from the ATM device and at least a portion of the transactional data.

The method of the present invention may be further defined as further comprising operating the website to conduct market research using at least selected portions of the personalized data. For example, operating a public ATM device can include entering

responses to a questionnaire displayed at the ATM device and transmitting encoded signals representing the responses to the questionnaire. The transmitted encoded signals are received at the Internet website and the responses defined thereby are linked (by the digital computer processing) with the identified-user record at the Internet website.

The method of the present invention may be further defined as further comprising operating the website to allocate redeemable credits for the user in response to the user operating a respective ATM port. The method can also be defined as further comprising operating the public ATM device to display an option for the user to select to obtain redeemable credits for a transaction fee charged to the user for using the public ATM device.

Preferred embodiments of the foregoing are apparent from the foregoing description of FIGS. 1-3 and the following description of FIGS. 4-23.

In order to obtain personalized information at the ATM, customers need to register with the ESP by visiting the ESP's website. FIG. 4 shows the procedure through which customers register for Internet enabled ATM extended services. Customers visit the ESP's website (401) and apply for an account (402). The customer may already have been issued an ID by the financial institution (e.g., bank) with whom the ESP has an alliance. For example, in this scenario the customer of the bank may receive a letter from the bank with an assigned ID and instructions on how to register on the ESP website. If not, the customer/user needs to provide information about his or her ATM account while creating the user profile on the ESP website. The user chooses or is assigned a username and a password. This user identification information can be forwarded electronically to the user's financial institution, through an alliance, so that authentication for a traditional bank transaction automatically authenticates the user for Extended ATM Services. This is done by utilizing the fact that Extended ATM Services will not be made available until the user has successfully completed a traditional bank transaction and hence been authenticated by the bank. The user is then presented with various facilities or input modules on HTML pages or the like to input relevant data (403) such as investment information (e.g., a stock portfolio), dining preferences, e-mails to be forwarded to the ATM terminal, emergency numbers with associated messages for paging, horoscopes, etc. The data, along with display and print configuration (404), are stored in the ESP's database. For example, a user can pre-store on the ESP website that he/she would like to automatically print stock quotes on a

certain portfolio when he/she is in a certain geographic location, while only displaying that information when he/she is in a different geographic location. This configuration saves the user from inputting the same information every time he/she is at the ATM. Thus, the ATM can display or print the desired information without any key punches at the ATM. This aspect is a desirable feature of the invention because it saves time and effort spent at the ATM for redundant queries, such as "would you like to print?" The user exits (405) the website upon completion of the data input and configuration. After this setup, the customer can visit any allied ATM machine and retrieve customized information from the ESP's website.

A typical transaction within the framework of the current invention will now be described with reference to FIG. 5. The customer inserts his card (501) to initiate a financial transaction, such as the withdrawal of cash. The ATM is controlled by a "Load File" which specifies the screens displayed by the ATM and the transitions between states as the user interacts with the ATM. Using appropriate specifications in the ATM "Load File" based upon the standards specified by manufacturers such as NCR and Diebold, the ATM is configured such that in the absence of a card, users can access extended ATM services offered by the ESP by entering their usernames and passwords at the ATM. In the case that the username and password has to be entered at the ATM, the user may not be able to access the full bank service menu because the bank has not had the opportunity to identify and verify the user. In other cases, the user is authenticated (502) for such financial transaction through the ATM host (503) in conjunction with the user's bank (504, 507). At the same time, the user's eligibility (506) for extended ATM services is determined through user identification data that can be resident in the user's bank and linked to the user's bank card depending on the business alliances and partnerships between the ESP and the bank.

If the user is not a member of the ESP, then the financial transaction is completed in the normal fashion prevalent on standard, non-internet enabled ATMs (505).

If the user is a member of the ESP, then a request to retrieve member or user information is forwarded through the Internet gateway to the ESP's Application Server using the dedicated network connection between them to identify the correct and specific user profile (508, 509) and prepare the user's data, such as his stock portfolio with real time quotes, dining preferences, customized advertising, etc., to be

downloaded to the ATM on demand. The transmission of specific data such as stock quotes occurs when the user selects the appropriate option on the ATM screen. While the traditional financial transaction, such as the withdrawal of cash, is being executed, the extended ATM services that are pre-stored and pre-defined on the ESP website can be simultaneously executed with advertising. This process is seamless because the time to process the bank transaction can be used by the ESP server to process the extended ATM services requirements as well as determine the type of targeted ads to display to the ATM user. For additional extended ATM services, the user is presented with a menu (510) of available services with advertising. For example, the extended option main menu can resemble that shown in FIG. 16 in one particular implementation. If the service chosen constitutes a financial transaction provided by the user's bank (511), the EFT transaction is completed with the user's financial institution (505).

If the service chosen is one provided by the ESP, the service is provided (512) via a query to the ESP's website. This process entails a request for information being sent by the ATM. For example, for NCR machines, this would be specified in the "Opcode Buffer" section of the NDC message format. The presence of a particular sequence within the Opcode Buffer (for example, "ABDDDD") would be interpreted by the ATM Host as indicating a request for a specific ESP transaction. This ATM Host would then generate an XML format message and transmit that to the Internet Gateway. From here the message would be forwarded to the Application Server 105 which would interpret the request, locate the requisite data from the database, and format an XML response message. This message would transmit via the Internet Gateway back to the ATM Host which would then translate it back to NDC message format (for our example of NCR machine) and send it to the ATM. The ATM would receive the message and display the response data on its screen. The user exits the program when no additional services are needed (513, 514 in FIG. 5). An exit is classified as a completion of the user ATM experience which results from the returning of the ATM card by the ATM machine. The user can be automatically exited from the ATM after a certain time has elapsed, or the user can manually choose to exit by pressing a button or key.

A customer requesting extended services needs to be identified, and his eligibility for extended services ascertained before such services can be delivered. FIG. 6 illustrates the authentication process for the delivery of extended ATM services. A

customer first inserts his ATM card into the ATM (600), or is identified by other means as discussed earlier. Through an alliance with financial institutions, a token identifier such as a unique customer identification number for extended services can be stored on the magnetic strip on the user's ATM card. This token is read at the ATM in the same manner a magnetic card reader reads the magnetic strip on conventional bank cards. If the token is available (601) and determined to be valid by the ESP (602), a request is forwarded to the ESP database for the user profile (605) and pre-stored information and delivery options. If the token is not available on the magnetic strip, a request for the token ID is made to the user bank (604) or any other entity with access to the database of token Ids. This request is made over a dedicated communications link (such as Frame Relay) between the Application Server 105 and the user bank 604 or any other entity with a database of token Ids. With the token ID, the request is then forwarded to the ESP database to get user profile and options (605, 606). A valid token permits the use of customer profile and options (608) to enable Customized Extended ATM Services with user based advertising (609). If the user profile has not yet been set up, a best fit default profile is determined based on user geographic location, ATM location, and user bank information (607). If the Token is invalid, only the Generic Extended ATM Services menu is presented to the user (603).

FIG. 7 shows an array of customizable extended services and how they are presented to the user. When the user has been validated for Internet enabled extended services (700), the user is presented with a menu containing options for movie tickets, weather (meteorological) information, restaurant or other locational information, stocks, emergency services, lottery, etc., (701). Based on the customer's profile, advertisements that are tailored to the customer are presented alongside with the menu of services (703/705). If the user does not have a profile, then advertisement pertaining to the ESP or the financial institution can be presented (704), or the advertising may be based upon a best fit default profile that may be determined from multiple variables, including geographical location, ATM location, user bank home state, user name, etc. For example, when no customer profile is available from the ESP, suggesting that the user has not setup an account with the ESP, the advertising message displayed to the user can take the form of a message targeted for all people who work or live in the vicinity of the ATM machine location. The advertising message for an ATM machine located in downtown Chicago could say- "Have you tried the McJordan sandwich at

McDonalds? Go to McDonald's on Rush and State and get $1.00 off on a McJordan sandwich!" If the customer profile is available from the ESP, the advertising message could say- "Hey Mr. Jones, we know you hate burgers, so try the McChicken sandwich at McDonalds on Rush and State."

If the user chooses the movie ticket option (702), the user is then presented with a choice of movies playing at cinemas in the locality, and the user can purchase a movie ticket through an electronic funds transfer (EFT) from his financial institution (706). This funds transfer would credit the cinema with the appropriate amount and allow the customer to present physical identification at the cinema to receive the tickets.

If the user chooses weather (707), local weather information is retrieved from the website and presented on the ATM screen. The user can also obtain weather information by entering a zip code or city/state abbreviation (708). Horoscope information may also be provided using the user's date of birth specified in the respective profile and horoscope data provided daily by an external service provider using mechanisms described earlier.

If the restaurant option is selected (709), the user is presented with available restaurants in the locality that fit the profile of the user. Cuisine and location information such as distance from the ATM to the selected restaurant is also presented (710). The information on the cuisine and distance from the ATM can be provided by an external service provider such as a "Maps and Directions" service as are commonly available on the Web.

If the lottery option is selected (711), then the user is presented with information on available lotteries, status of currently held lottery tickets, and may purchase lottery ticket(s) (712).

If the emergency services is selected (713), depending on the level or state of emergency that has been defined by the user on the ESP website to correspond with different states, types, or levels of emergencies, a text message already pre-stored on the ESP website by the ATM user can be transmitted to the designated party as pre-defined by the user on the ESP website (714). The means of transmission of message to the designated party can take the form of a page, phone, e-mail, or fax, for example. The text message is converted to voice using standard commonly available technology for text-to-voice conversion. (For higher states of emergency, the user can also specify

from the ATM, the message, the recipient, and the mode of delivery). For example, for some states of emergency the user will be able to key in from the standard ATM keypad the phone number to whom a pre-stored message must be sent. The emergency option, or any of the other options, may be accessible using the cardless transaction shown in FIG. 10. Different levels of emergency may be designated with different or additional automated responses being made (e.g., whom to call, page, e-mail, or fax; what message to deliver; whether to contact police, fire, or ambulance service; what to print or display or otherwise do at the ATM site). Video imaging may also be done using a camera typically used at ATM sites (this need not be limited to an emergency situation in that the user may select a video option and have the image transmitted for storage at the website or for communication to one or more designated recipients).

If e-mail is selected (716), the Application Server 107 checks for any e-mail that has been designated to be forwarded to the ATM. This can include a filtering capability, such as by specifying a particular phrase in the Subject line of the ATM (for example, "ATM Emergency"). If such e-mail exists, the e-mail is displayed on the ATM screen to be read (717).

It is possible for customers to store limited text on the ESP's website via the ATM. Such information could be, for example, the customer's parking location within a crowded garage. Upon selecting the option to store or view text (718), the customer uses the ATM keypad to enter limited text or to retrieve text that has been previously stored at the website (719).

Another feature can be to provide the creation of and access to a personal home page.

The customer can exit (715) this program by selecting the "Exit" option on the menu.

Referring next to FIG. 8, it is possible for a non-registered customer to obtain certain generic services, defined as non user-specific services that would be standard to all users when a customer profile does not exist. In this instance, the program enters a mode for generic extended services (800). These services may include, for example, weather information, restaurant information, and movie information with the ability to purchase a ticket (801). While executing generic services, the user is presented with advertising on the ATM screen or printed receipt based on a default best fit profile (802, 803, 804).

If the user chooses the movie ticket option (805), the user is then presented with a choice of movies playing at cinemas in the locality. This information is provided using a connection (via the Application Server 107 and the ESP database 106 in the FIG. 2 implementation) between the Application Server 105 and a data feed from a movies information provider such as MoviePhone, and the user can purchase a movie ticket through an electronic funds transfer (EFT) from his or her financial institution (806).

If the user chooses weather (807), local weather information is retrieved from the website and presented on the ATM screen. The user can also obtain weather information by entering a zip code or city/state abbreviation (808).

If the restaurant option is selected (809), the user is presented with available restaurants in the locality that fit the profile of the user. Cuisine and location information such as distance from the ATM to the selected restaurant is also presented (810).

Referring to FIG. 9, the present invention allows customers to purchase lottery tickets at the ATM from the menu of options (901). Through the ESP and with an alliance between the customer's bank and the appropriate Lottery Service, this transaction can be executed in a paperless fashion. If the user chooses to purchase a lottery ticket (902), the user is presented with a selection of cities, states, or countries for which a lottery ticket can be purchased (903). After selecting the region and the amount of tickets to be purchased, the user can choose between random picks (904) for which lottery numbers are generated at random (906) on the ESP Application server 105 using commonly available random number generator algorithms, and manual entry (905) for which the user is presented with a facility or input module on the ATM screen to enter the desired numbers using a common ATM keypad. Once a valid lottery number is obtained (907), the ticket is purchased through an EFT from the user's financial institution to the Lottery Service using standard practice followed in the EFT world. The lottery numbers are linked (908) to the user in a database at the ESP server (911) and electronically transferred to and stored in the financial institution's database (910) as well as the Lottery Service's database (909). The paperless lottery allows winners to be identified automatically and electronically. For example, a winning number can be matched by the ESP against all the data values stored in the ESP database, and the numbers that have an exact match to the winning ticket can be

informed via phone, fax, e-mail, etc. Once the identification procedures are complete, the funds can be automatically transferred into the winner's bank account via standard EFT transfer. A receipt may be printed at the user's request (912, 913) at the ATM, but a receipt is no longer necessary because an electronic receipt has already been sent by the ESP Server to the user, via some electronic means such as e-mail. Other options can be selected as indicated in FIG. 9 (914).

The ATM can also be set up to perform certain Internet enabled extended transactions without the insertion of a card. This mode of operation, depicted in FIG. 10, is meant to address the many instances when a customer may want access to extended services but is not in possession of a bank card due to, for example, a lost wallet. In this instance, the customer can activate the cardless mode of the ATM by entering a known code (1001), for example by pressing "#**1111" on the ATM keypad. The user is prompted for a username and a password (1002) on the ATM screen. Entering the wrong password three times (1003) disables the user's account at the ESP and exits the cardless transaction mode (1004). Once the user enters the correct username and password (1006), the user is presented with a menu for cardless services (1010). Simultaneously, for security reasons, the password used to access the cardless services menu is deactivated (1007) to prevent any further use of the cardless mode by an unauthorized user. The user must call a designated telephone number or by some other means correctly identify himself/herself to be mailed or receive by any other secure means, a new password for any subsequent use of the cardless mode. The user can cycle through a host of cardless services (1010), and can exit (1012) if no additional services are desired (1011). If the user wants to execute a financial transaction with the ESP (1013), the user is prompted to select from available cards (1014) designated by the user on the ESPs website that have already been pre-stored by the user on the website on some previous visit. Upon selection of a card, the user is prompted for a Personal Identification Number (PIN) (1015) that has been assigned and disclosed to the user during his/her initial setup stage on the website. If a correct PIN is entered corresponding to the selected card, the pre-stored transaction is executed through the ATM (1016). Likewise after first use of the PIN, for security reasons, the PIN is deactivated (1017) to prevent any further use by an unauthorized user. The user can assign via the web browser, or be assigned via some secure means, a new PIN to be used for future cardless financial transactions. The Extended cardless ATM service

can, for example, take the form of a cash withdrawal transaction from a credit card or debit card or the like, as stored in the ESP web server database for the user. For example, one way of accomplishing this transaction is as follows: the ATM owner's bank would view the cash transaction request as a foreign bank transaction and issue cash to the ATM user as authorized by the foreign bank, in this case, the ESP bank. The ESP provider would then credit the amount to the ATM owner bank via a standard EFT transaction. The user of this ESP service would then be charged by the ESP on the designated credit card or debit card as a standard point of sale or merchant credit card transaction. In such a transaction, an EFT transaction is executed between the user card stored in, and selected from, the ESP web server and the ATM bank or the user card and the merchant bank of the ESP itself. The later transaction would be similar to a "cash back" transaction that is common with most merchants and vendors.

Another aspect of the present invention relates to the expansion of decision making that requires limited time and thinking to provide the user with additional options that are value added options that may be more attractive to the user (unlike the current $1.50 or so transaction charge which is perceived to be a sunk cost), thereby prompting the user to conduct the intended transaction by selecting the different option(s) without walking away to look for a "friendly" ATM machine. This provides a method of enhancing computer-implemented commerce, comprising: maintaining a computer site connected in a computer network including a global computer communication system (such as illustrated in FIGS. 1 and 2, for example); and responding in the computer site (e.g., the ESP site) to consumer-selected seller-defined events, including allocating redeemable credits to a consumer having an account at the computer site and selecting at least one of the seller-defined events. This can also be more specifically defined as a method of mitigating transaction costs to a user of a commercial computer network, comprising: maintaining a computer site connected in a computer network including a global computer communication system and a banking computer system; and receiving and responding to, under control of the computer site, encoded signals representing a banking system transaction made by a user at an access port of the computer network, including allocating via computer processing redeemable credits to the user in response to the received encoded signals. Specifically regarding an ATM system, the present invention provides a method of mitigating transaction costs to a user of an ATM device, comprising allocating via computer processing redeemable credits to a user

of an ATM device, such as for allocating a predetermined quantity of credits corresponding to the amount of the transaction fee charged for using the ATM. Credits, or points, can be allocated for any suitable purpose, another example of which includes allocating a predetermined quantity of credits for the user responding to an inquiry from a seller.

The user can be presented with multiple options (including the opportunity to reject all options) from which she chooses one (including the full fee paying original option) or she can be presented with various options in sequence. The value added options can take various forms. For example, the option can be advertising driven where the user is asked to look at a screen for a number of seconds, or where the user is asked to answer questions as in the case of conducting market research. In this scenario, the user may conduct her transaction for entirely no cost. The cost of transaction can then be borne by the advertiser, promoter, or otherwise. Another approach would be where the user is presented with options that can be monetized or underwritten, partially or in whole, by the ATM owner from a third party such as an advertiser rather than by the user. The cost of the option can be more or less than the disclosed transaction cost, but the value of the option will be tangibly more than the cost of the option. This aspect of the present invention can be implemented by using the gateway 104, the application server 105, and database 106 system, or it can be set up as a separate internal part of the system, or it can be implemented as a website accessible via the web server 108. In whatever form, the point-acquisition feature of the present invention preferably is accessible to a user via the Internet as well as via the interface available at an ATM device. FIG. 11 shows an accessible Internet website computer site maintained on server 1100 (which can be implemented using the system shown in FIGS. 1 and 2, for example) which communicates with bank ATM controller (as part of an ATM host 103) which in turn communicates with the ATM device 101. Also as shown in FIG. 11, alliances are formed with advertisers or external service providers 1101 and with redemption locations 1102 which typically will be affiliated with the advertisers or external service providers.

A more detailed illustration of an example of this method of the present invention is illustrated in FIG. 12. In this implementation, the operation of the server 1100 is based in part upon relationships developed with advertisers, partners, retail outlets, or other external service providers and one or more banks or other ATM

owners. The banks receive revenues and benefits and pay minimal fees, and the ATM devices (even monochrome and low-color machines) require no hardware modification. The bank or ATM owners add the "redeemable credits" optional services menu to the displays to be provided at a respective ATM device (see FIG. 18, for example). The ATM systems are also adapted at the ATM controller to communicate with the server 1100 or other system of the present invention such as described above. A bank may provide a list of unacceptable advertisers that may not be displayed on respective ATM devices, and a bank may exchange bank products or services for a bundled amount of redeemable credits to be provided via the server 1100 in the illustrated embodiment. A bank may also advertise to its customer to apprise them of such additional features available through its ATM devices.

With regard to the advertisers and other external entities, they pay fees for participating in the methodology implemented by the present invention. An advertiser needs to be on the bank approved list of advertisers and have suitable criteria for advertising on the ATM or the website. Advertisers pay an advertising fee in exchange for advertising on the ATM or the website. The fee need not always be in cash as goods and services of the advertiser may be exchanged for advertising. Allocated credits can be redeemed by customers for such goods and services. For advertisers that enable allocated redeemable credits to be immediately redeemed, such advertiser would provide its outlets with suitable authentication means, one non-limiting example of which is a device similar in size to other point of sale devices. Such a "card reader" type device is used to authenticate the redemptions when a customer comes in and redeems allocated credits. Such authentication is provided via computer processing. This can include sending from the computer site to a seller authentication data for the allocated redeemable credits. Authentication can include printing authenticating indicia of the allocated redeemable credits at the user's location, such as via a conventional printer at the ATM location. Allocating redeemable credits can also preferably include storing encoded signals in a database at the computer site to identify respective users and redeemable credits allocated to the users.

From the various transactions managed through the server 1100 in the illustrated implementation, usage statistics and other marketing facts on user behavior can be provided to the advertisers who can then continue or modify advertising campaigns as supported by the provided research. This can include, for example, the

user responding to an inquiry from a seller and allocating a predetermined quantity of credits corresponding to the seller's inquiry. This can further include, for example, compiling at the computer site user information and transmitting from the computer site to an advertiser encoded signals representing information from the compiled information. The compiling of marketing information at the computer site can be, for example, in response to allocated redeemable credits and monitored redemptions of allocated credits. Encoded signals can be transmitted from the computer site to sellers underwriting the credits such that the sellers can vary marketing of sellers' goods and services in response thereto.

The customers or consumers can be automatically enrolled in the redeemable credits program with their first transaction as indicated in FIG. 12. This occurs by the consumer either going directly to the website or by using the ATM device. At the website, the consumer may participate in market research and forums, sign up for sponsored services, or take other actions provided through the website itself. At an ATM device, or even a hand-held device, the consumer can access advertising driven services, pay for transaction fee oriented services, answer or respond to marketing questionnaires, etc. For such actions, redeemable credits are allocated to the respective customers as managed via operation of the server 1100. Such redeemable credits can be redeemed via the website or the ATM or directly from the goods or services provider. This can be by going to such outlets and having the outlets perform the authentication process as mentioned above, or a physical authentication product can be printed at the ATM device for presentation by the consumer at the redemption outlet.

Consumers collect redeemable credits such as by paying a transaction fee for transactions via foreign machines, or when simply using an ATM machine, or by participating in an advertisers marketing program provided via the website or the ATM machine, or by other predefined interaction with the website or the ATM machine.

Consumers can redeem allocated redeemable credit on the website where advertisers may offer products and services, via ATM machines permitting instant redemption, or directly from redemption outlets associated with the advertisers or other third parties. Preferably these redemptions of allocated credits are monitored from the computer site.

Referring to FIG. 13, various revenue streams are provided in implementing the method of the present invention. Revenue sources to the website 1100 include

advertising expenditures paid by advertisers or other third parties for advertising implemented at the website 1100 or at the ATM machine. Revenues may also be paid for other services provided by the server 1100 operator. A revenue stream to and from the banks can also be included. Thus, the method also comprises transferring, via computer processing at the computer site, accounting data among a seller providing goods or services for allocated redeemable credits, the computer site, and the banking computer system such that money is paid by the seller to the computer site and the banking computer system. This can also be stated as providing advertiser-based options from a computer site on the Internet to an ATM device, including using data processing to transfer money from an advertiser to the computer site and transmitting from the computer site to the ATM device encoded signals representing options for a user of the ATM device to select with regard to goods or services provided by the advertiser.

Revenues to participating banks can include a percentage of advertising fees, increased foreign transaction fees, cost savings from transactions handled through ATM machines in lieu of teller-involved transactions, additional customers, and increased sales of other bank products.

Examples of advertiser revenue sources include increased sales and less expensive and improved market research.

FIG. 13 also shows flows of "points" from the website to the sellers and bank and from them to buyers. This refers to the possibility of sellers and banks themselves purchasing points/credits from the website for direct resale or distribution by them to their buyers/customers, including their own employees (e.g., for employee reward programs).

The method of the present invention is preferably implemented so as not to significantly increase the amount of time users spend at an ATM machine, thereby avoiding inconvenience to other, waiting customers. It is contemplated that use of the present invention will not increase per visit usage time in excess of conventional time limits typically used in ATM machines. This preferably occurs whether providing the options in parallel with traditional financial transactions or in series with them.

The present invention is also preferably implemented using appropriate encryption and technology safeguards to ensure the security of the operation and the proper management of the information conveyed through implementation of the invention. The present invention is preferably implemented in a "pluggable" manner

such that participants can "unplug" at any time without affecting such party's own network.

To illustrate use of the present invention by a user at an ATM machine, reference will next be made to FIGS. 14-23. FIG. 14 shows an example of a conventional screen for an idle ATM machine instructing a user to insert his or her card and password to commence utilization of the machine. When this is done by the user, the main menu of FIG. 15 appears. This can be a conventional main menu or one with the addition of the new optional selection to go to a secondary main menu through which the extended options are available as described above. FIG. 15 illustrates a conventional non-fee main menu (but with advertising added if not conventionally done) from which a conventional financial transaction is effected. FIG. 16, on the other hand, illustrates a screen display when there is to be a financial transaction fee. It is at this screen in FIG. 16, for example, that a value added, "redeemable credits," option is displayed as shown in FIG. 16. If this option is selected (which can be manually selectable or automatically applied), the points are credited to the user.

Whichever transaction occurs (either via the screen of FIG. 15 or the screen of FIG. 16), a screen as illustrated in FIG. 17 is displayed to show advertisements to the user during the processing time for the financial transaction. When this is complete, the screen of FIG. 18 is displayed to offer the user the full range of options including using the personalized extended options, earning redeemable credits, and spending redeemable credits (while also displaying advertising).

An example of an extended options main menu is illustrated in FIG. 19. Use of the extended option main menu screen shown in FIG. 19 will not be further described as it is used in implementing the method of the present invention described above with regard to the personalization aspects of the invention.

An example of a display for the "earn redeemable credits" option is shown in FIG. 20, which typically displays at the ATM device advertiser-related options in conjunction with a recitation of a transaction fee to be charged. In FIG. 20, the options are (1) to receive a certain number of minutes of discounted long distance phone calls for a fixed price, (2) to get a certain number of airline miles for $5.00, and (3) to get a discounted meal at a restaurant near the ATM device for a certain discounted price.

In option 1, it is assumed that the customer will only accept the option if he/she has a pre-existing account with the specified phone company. Upon selecting the

option, the stated price is debited from the account, and the user proceeds with his/her ATM transaction. The ESP website identifies the user and the user's phone company account number as established or made available on the ESP website. A proper code is established and the phone company's server is contacted via the ESP computer to register the code for the user as per prior agreements with the phone company. The phone company then adjusts the user account and sends email or informs the user by any other logical means. The ATM owner bank then conducts the necessary offsetting transaction to credit the phone company with the proper amount as per the marketing agreement.

In option 2, if selected, the $5.00 is debited from the user bank account via operation of the ESP computer. The user then receives a code via email or other means confirming that the air miles have been registered to his or her account. The account information has been previously stored on the ESP website (see FIGS. 1 and 2 or 11). If the information is not stored, the user is informed of such and asked to provide the needed account information.

In option 3, if selected, the processing methodology can take multiple paths. In one version, the discounted meal amount is debited from the user account (much like a POS transaction), with a code being printed on the transaction receipt. The transaction receipt or the code itself can be presented at the restaurant, which will honor the code as presented as per prior arrangements within the alliance including the ESP, the restaurant, and the bank. The restaurant and the ATM owner bank can then conduct an offsetting transaction at the arranged time periods. In another implementation, no money is debited from the user account, but a code is printed on the receipt. The user must present this receipt or code to the restaurant to receive the meal for the discounted amount which the user pays in cash or otherwise. The restaurant then conducts an offsetting transaction to the ATM owner bank per prior marketing agreement to compensate for the lost ATM transaction cost (e.g., $1.50).

FIG. 21 illustrates another type of "earn redeemable credits" screen. This one allocates points or credits for the user to respond to one or more questions (e.g., customer survey questions).

Other types of "earn redeemable credits" displays can, of course, be used.

FIG. 22 illustrates an example for a "spend redeemable credits" display which is shown at the ATM if the respective selection is made at the display of FIG. 18. Here

one or more options to spend can be listed. These can be of whatever nature, but one type is to provide for relatively immediate redemptions within the locale of the respective ATM device. Non-limiting examples include discount food from local restaurants, discount merchandise from local retailers, and discounts for entertainment (e.g., reduced price theatre tickets or free food or drinks at theatres).

Still another type of transaction that can be provided for using the present invention is one which induces or encourages the ATM user to perform a cost-saving transaction at the ATM. This might be, for example as shown in FIG. 23, providing for the allocation of redeemable credits if the user makes a deposit using the ATM, which is less expensive to the bank than if the user goes to the bank and makes a deposit through a bank teller.

The foregoing have been given to illustrate the present invention and the specifics described above are not limiting of other uses or forms to which or in which the present invention can be put.

To effect credit allocation, the ATM devices typically operate as "state machines" where most, if not all, of the processing or "thinking" is done outside of the ATM at the Host or ATM controller level (which sits elsewhere) to prevent any security issues. In this case, every time an option is selected, there is communication to the ESP server via the ATM Host controller to verify the user and his or her "reward" balance, to identify what "reward" options would be appropriate to his/her profile stored via the website (example: if vegetarian, do not give the option to redeem points for a cheeseburger). If no profile exists, the best options, or some standard options are presented to redeem. In this case, these options can be "cached" into the ATM and would not require communication with the ESP server for presentation on the ATM, but communication may be required for verification (such as for a code to be printed on the receipt so that the user can present to the merchant as a coupon) with at least the ATM Host, if not always the ESP server. Furthermore, communication to the ESP server is not always required because some basic criteria may be available at the ATM Host level to continue operations smoothly in case the ESP server is down. However, communication to at least the ATM Host is typically always required.

When the ESP or other controlling/managing computer is involved, the user selects an advertiser-related option at the ATM device, which transmits to the computer site encoded signals representing the selected option. The computer site allocates

redeemable credits for the advertiser's goods or services in response to the transmitted encoded signals representing the selected option, such as described in the three examples above. For example, encoded signals representing the allocated redeemable credits can be transmitted from the computer site to the ATM device to give confirmation or authentication information to the user.

The user or the ESP (or other computer) site effects redemption of the allocated redeemable credits for the advertiser's goods or services, non-limiting examples of which are given in the above examples. When the ESP site does not effect the redemption itself, preferably encoded signals representing redeemed allocated credits are transmitted to the ESP computer site, such as from the redemption site, for it to reconcile records and for other use, such as in compiling marketing information. Thus the method can also include compiling by data processing at the computer site marketing information in response to allocated and redeemed credits and transmitting encoded signals from the computer site to the advertiser in response to the compiled marketing information.

The method can also comprise transmitting from the computer site to the bank having the ATM device encoded signals designating fees paid to the bank from the money transferred from the advertiser to the computer site.

Thus, the present invention is well adapted to carry out the objects and attain the ends and advantages mentioned above as well as those inherent therein. While preferred embodiments of the invention have been described for the purpose of this disclosure, changes in the construction and arrangement of parts and the performance of steps can be made by those skilled in the art, which changes are encompassed within the spirit of this invention as defined by the appended claims.

What is claimed is:

1. A personalized publicly accessible communication system, comprising:

an ATM system having a plurality of publicly accessible ATM ports; and

a global communication system connected to the ATM system, the global communication system including an Internet website providing a database into which a plurality of users input personalized data for use through any of the ATM ports.

2. A personalized publicly accessible communication system as defined in claim 1, wherein the global communication system further includes third-party sites accessible by the Internet website in response to communication by a user to the Internet website from any of the ATM ports.

3. A method for providing, to a user, personalized communication via a publicly accessible communication network, comprising:

providing on the Internet a website having a database for receiving personalized data for a user;

communicating the website with an ATM system having a plurality of publicly accessible ATM ports; and

operating the website to use at least selected portions of the personalized data in response to input received by the website from any of the ATM ports operated by the user.

4. A method as defined in claim 3, further comprising operating the website to conduct market research using at least selected portions of the personalized data.

5. A method as defined in claim 3, further comprising transmitting to a respective ATM port operated by the user encoded signals with which to display at the respective ATM port a questionnaire to be answered by the user.

6. A method as defined in claim 5, further comprising:

receiving from the respective ATM encoded signals representing the user's answers to the questionnaire; and

digitally linking the encoded signal answers to the personalized data for the user.

7. A method as defined in claim 3, further comprising operating the website to allocate redeemable credits for the user in response to the user operating a respective ATM port.

8. A method for a user to conduct personalized communications from an ATM site, comprising:

inputting, into an identified-user record at a predetermined Internet website, personalized data for an identified user; and

operating a public ATM device to access the Internet website and to cause at least a portion of the personalized data to be used, including entering identifying information about the identified user at the public ATM device and automatically retrieving to the ATM device information responsive to validated entered identifying information and at least a portion of the personalized data in the identified-user record.

9. A method as defined in claim 8, wherein:

inputting personalized data includes inputting investment information for the user;

the method further comprises operating the Internet website to obtain current valuation data regarding the input investment information; and

automatically retrieving to the ATM device includes retrieving the current valuation data and displaying the current valuation data at the ATM device.

10. A method as defined in claim 8, wherein:

inputting personalized data includes inputting emergency informational data and emergency transactional data;

operating a public ATM device further includes sending an emergency signal from the ATM device to the Internet website; and

the method further comprises operating the Internet website to perform an emergency task defined by the emergency transactional data in response to the Internet website receiving the emergency signal.

11. A method as defined in claim 10, wherein entering identifying information about the identified user and sending an emergency signal from the ATM device are performed at the ATM device without an ATM access card.

12. A method as defined in claim 10, wherein entering identifying information about the identified user and sending an emergency signal from the ATM device include

entering identification and control commands at the ATM device through a keypad of the ATM device.

13. A method as defined in claim 10, wherein sending an emergency signal includes sending a selected one of a plurality of emergency signals wherein each of the emergency signals defines to the Internet website a respective level of emergency to which the Internet website is to respond.

14. A method as defined in claim 8, wherein:

inputting personalized data includes inputting e-mail delivery information for the user;

the method further comprises operating the Internet website to obtain e-mails for the user in response to the input e-mail delivery information; and

automatically retrieving to the ATM device includes retrieving the obtained e-mails and displaying the e-mails at the ATM device.

15. A method as defined in claim 8, wherein:

the method further comprises operating the Internet website to obtain meteorological information for the user; and

automatically retrieving to the ATM device includes retrieving the obtained meteorological information and displaying the meteorological information at the ATM device.

16. A method as defined in claim 8, wherein:

the method further comprises operating the Internet website to obtain horoscopic information for the user; and

automatically retrieving to the ATM device includes retrieving the obtained meteorological information and displaying the horoscopic information at the ATM device.

17. A method as defined in claim 8, wherein:

the method further comprises operating the Internet website to obtain locational information for the user; and

automatically retrieving to the ATM device includes retrieving the obtained locational information and displaying the locational information at the ATM device.

18. A method as defined in claim 8, wherein:

inputting personalized data includes inputting transmission recipient information for the user;

operating a public ATM device further includes creating a digital image of the user at the ATM device and transmitting the digital image to the Internet website; and

the method further comprises operating the Internet website to receive the transmitted digital image and to communicate the digital image to at least one recipient in response to the transmission recipient information.

19. A method as defined in claim 8, wherein:

operating a public ATM device further includes sending an entertainment event selection signal from the ATM device to the Internet website; and

the method further comprises operating the Internet website to obtain a valid ticket right and effect payment therefor in response to the Internet website receiving the entertainment event selection signal and to transmit signals to the ATM device to cause the ATM device to print a valid ticket in response to the purchased valid ticket right.

20. A method as defined in claim 8, wherein:

operating a public ATM device further includes inputting alphanumeric information at the ATM device and transmitting the alphanumeric information to the Internet website; and

the method further comprises operating the Internet website to receive and store the transmitted alphanumeric information.

21. A method as defined in claim 20, further comprising operating a second public ATM device to access the Internet website and to retrieve at least part of the alphanumeric information stored at the Internet website.

22. A method as defined in claim 8, wherein:

operating a public ATM device further includes sending a lottery selection signal from the ATM device to the Internet website; and

the method further comprises operating the Internet website to obtain a valid lottery ticket right and effect payment therefor in response to the Internet website receiving the lottery selection signal.

23. A method as defined in claim 22, further comprising:

maintaining in a database at the Internet website information about the valid lottery right and the identified user;

monitoring from the Internet website results of the lottery; and

effecting via the Internet website an electronic funds transfer, into an account of the identified user's, of winnings to be paid to the user in the event the monitored results of the lottery indicate that the valid lottery right is a lottery winner.

24. A method as defined in claim 8, wherein:

inputting personalized data includes inputting informational data and transactional data;

automatically retrieving to the ATM device includes automatically retrieving from the Internet website data responsive to at least a portion of the informational data; and

further comprising operating the Internet website to perform at least one task in response to a signal from the ATM device and at least a portion of the transactional data.

25. A method as defined in claim 8, wherein operating a public ATM device further includes entering responses to a questionnaire displayed at the ATM device.

26. A method as defined in claim 25, wherein:

operating a public ATM device still further includes transmitting encoded signals representing the responses to the questionnaire; and

the method further comprises receiving the transmitted encoded signals at the Internet website and linking the responses defined thereby with the identified-user record at the Internet website.

27. A method as defined in claim 8, further comprising operating the public ATM device to display an option for the user to select to obtain redeemable credits for a transaction fee charged to the user for using the public ATM device.

28. A method of enhancing computer-implemented commerce, comprising:

maintaining a computer site connected in a computer network including a global computer communication system; and

responding in the computer site to consumer-selected seller-defined events, including allocating redeemable credits to a consumer having an account at the computer site and selecting at least one of the seller-defined events.

29. A method of mitigating transaction costs to a user of a commercial computer network, comprising:

maintaining a computer site connected in a computer network including a global computer communication system and a banking computer system; and

receiving and responding to, under control of the computer site, encoded signals representing a banking system transaction made by a user at an access port of the computer network, including allocating via computer processing redeemable credits to the user in response to the received encoded signals.

30. A method as defined in claim 29, further comprising transferring, via computer processing at the computer site, accounting data among a seller providing goods or services for allocated redeemable credits, the computer site, and the banking computer system such that money is paid by the seller to the computer site and the banking computer system.

31. A method as defined in claim 29, wherein allocating redeemable credits includes providing via computer processing authentication of the allocated redeemable credits.

32. A method as defined in claim 29, wherein allocating redeemable credits includes printing authenticating indicia of the allocated redeemable credits at the user's location.

33. A method as defined in claim 29, wherein allocating redeemable credits includes sending from the computer site to a seller authentication data for the allocated redeemable credits.

34. A method as defined in claim 29, wherein allocating redeemable credits includes storing encoded signals in a database at the computer site to identify respective users and redeemable credits allocated to the users.

35. A method as defined in claim 29, wherein the banking system transaction is an ATM transaction in the banking computer system for which a transaction fee is charged and further wherein allocating redeemable credits includes allocating a predetermined quantity of credits corresponding to the amount of the transaction fee.

36. A method as defined in claim 29, wherein the banking system transaction includes the user responding to an inquiry from a seller and further wherein allocating redeemable credits includes allocating a predetermined quantity of credits corresponding to the seller's inquiry.

37. A method as defined in claim 29, further comprising compiling at the computer site user information and transmitting from the computer site to an advertiser encoded signals representing information from the compiled information.

38. A method as defined in claim 29, further comprising monitoring from the computer site redemptions of allocated credits.

39. A method as defined in claim 38, further comprising compiling marketing information at the computer site in response to allocated redeemable credits and monitored redemptions of allocated credits and transmitting encoded signals from the computer site to sellers underwriting the credits such that the sellers vary marketing of sellers' goods and services in response thereto.

40. A method of mitigating transaction costs to a user of a commercial computer network, comprising:

providing advertiser-based options from a computer site on the Internet to an ATM device, including using data processing to transfer money from an advertiser to the computer site and transmitting from the computer site to the ATM device encoded signals representing options for a user of the ATM device to select with regard to goods or services provided by the advertiser;

displaying at the ATM device advertiser-related options in conjunction with a recitation of a transaction fee to be charged for the user to use the ATM device;

selecting an advertiser-related option at the ATM device and transmitting from the ATM device to the computer site encoded signals representing the selected option;

allocating at the computer site redeemable credits for the advertiser's goods or services in response to the transmitted encoded signals representing the selected option;

transmitting from the computer site to the ATM device encoded signals representing the allocated redeemable credits;

redeeming the allocated redeemable credits for the advertiser's goods or services;

transmitting to the computer site encoded signals representing redeemed allocated credits;

compiling by data processing at the computer site marketing information in response to allocated and redeemed credits and transmitting encoded signals from the computer site to the advertiser in response to the compiled marketing information; and

transmitting from the computer site to the bank having the ATM device encoded signals designating fees paid to the bank from the money transferred from the advertiser to the computer site.

41. A method of mitigating transaction costs to a user of an ATM device, comprising allocating via computer processing redeemable credits to a user of an ATM device.

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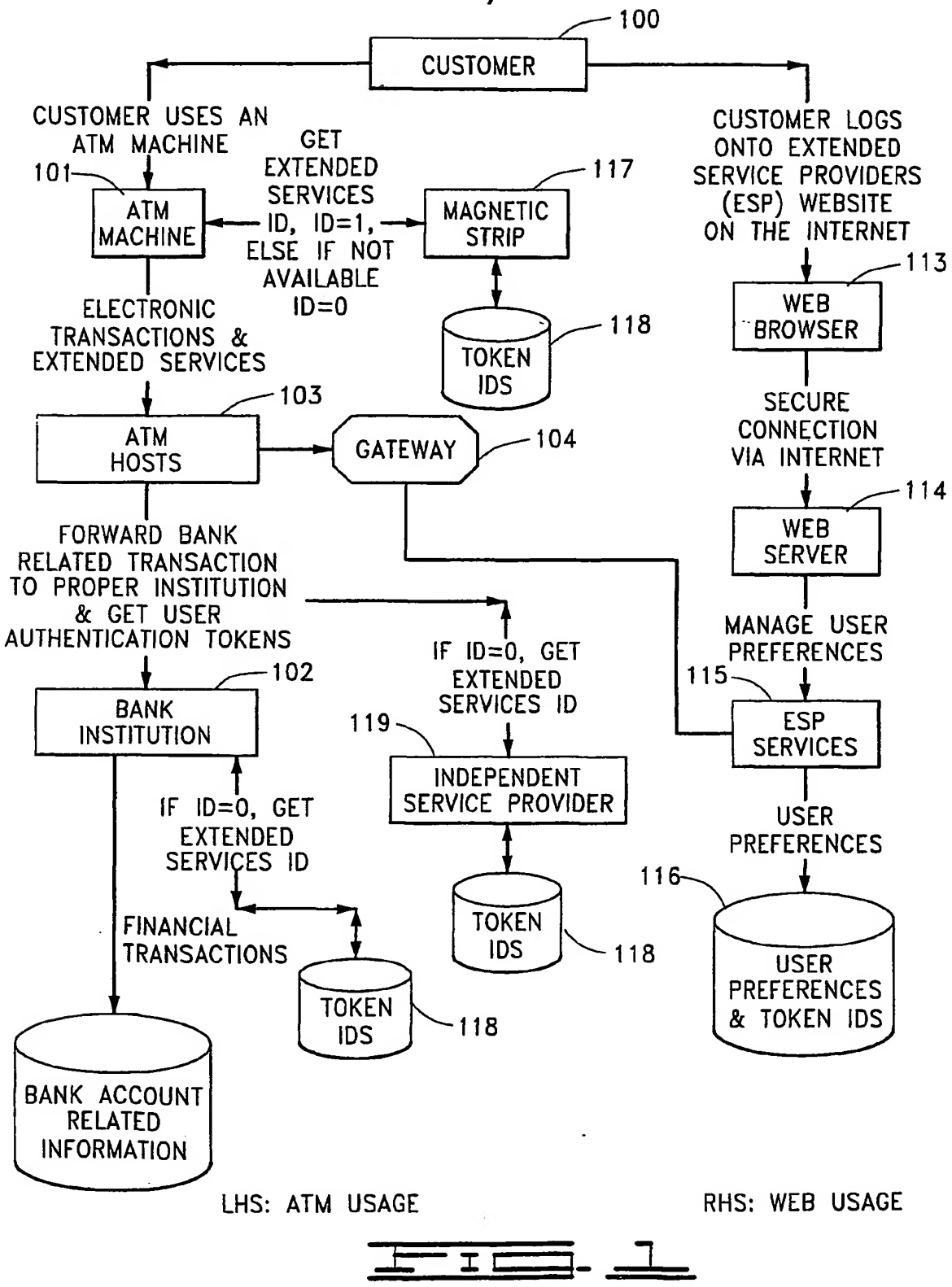

100
CUSTOMER
CUSTOMER USES AN ATM MACHINE
CUSTOMER LOGS ONTO EXTENDED SERVICE PROVIDERS (ESP) WEBSITE ON THE INTERNET
101
ATM MACHINE
GET EXTENDED SERVICES ID, ID=1, ELSE IF NOT AVAILABLE ID=0
117
MAGNETIC STRIP
113
WEB BROWSER
ELECTRONIC TRANSACTIONS & EXTENDED SERVICES
118
TOKEN IDS
103
ATM HOSTS
GATEWAY
104
SECURE CONNECTION VIA INTERNET
114
WEB SERVER
FORWARD BANK RELATED TRANSACTION TO PROPER INSTITUTION & GET USER AUTHENTICATION TOKENS
IF ID=0, GET EXTENDED SERVICES ID
MANAGE USER PREFERENCES
115
102
BANK INSTITUTION
119
INDEPENDENT SERVICE PROVIDER
ESP SERVICES
IF ID=0, GET EXTENDED SERVICES ID
USER PREFERENCES
116
FINANCIAL TRANSACTIONS
TOKEN IDS
118
TOKEN IDS
118
USER PREFERENCES & TOKEN IDS
BANK ACCOUNT RELATED INFORMATION
LHS: ATM USAGE
RHS: WEB USAGE

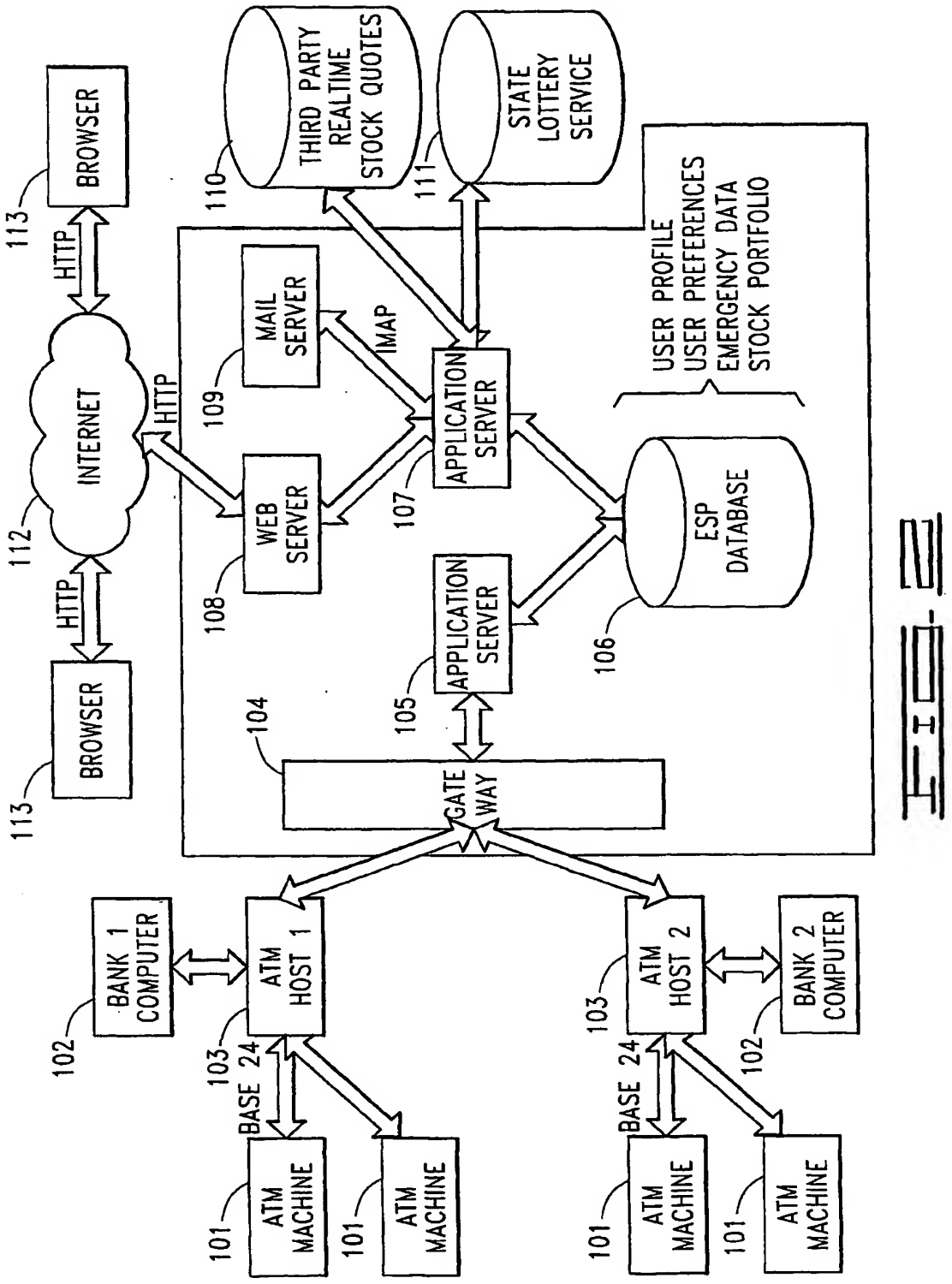

BROWSER
113
HTTP
INTERNET
112
HTTP
BROWSER
113
THIRD PARTY REALTIME STOCK QUOTES
110
STATE LOTTERY SERVICE
111
USER PROFILE
USER PREFERENCES
EMERGENCY DATA
STOCK PORTFOLIO
MAIL SERVER
109
IMAP
APPLICATION SERVER
107
WEB SERVER
108
APPLICATION SERVER
105
ESP DATABASE
106
GATE WAY
104
BANK 1 COMPUTER
102
ATM HOST 1
103
BASE 24
ATM MACHINE
101
ATM MACHINE
101
ATM HOST 2
103
BASE 24
BANK 2 COMPUTER
102
ATM MACHINE
101
ATM MACHINE
101

FIG-2

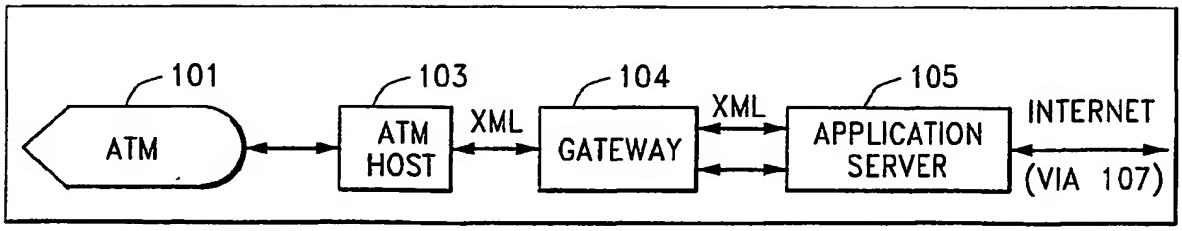

101
ATM
103
ATM HOST
XML
104
GATEWAY
XML
105
APPLICATION SERVER
INTERNET
(VIA 107)

FIG. 3

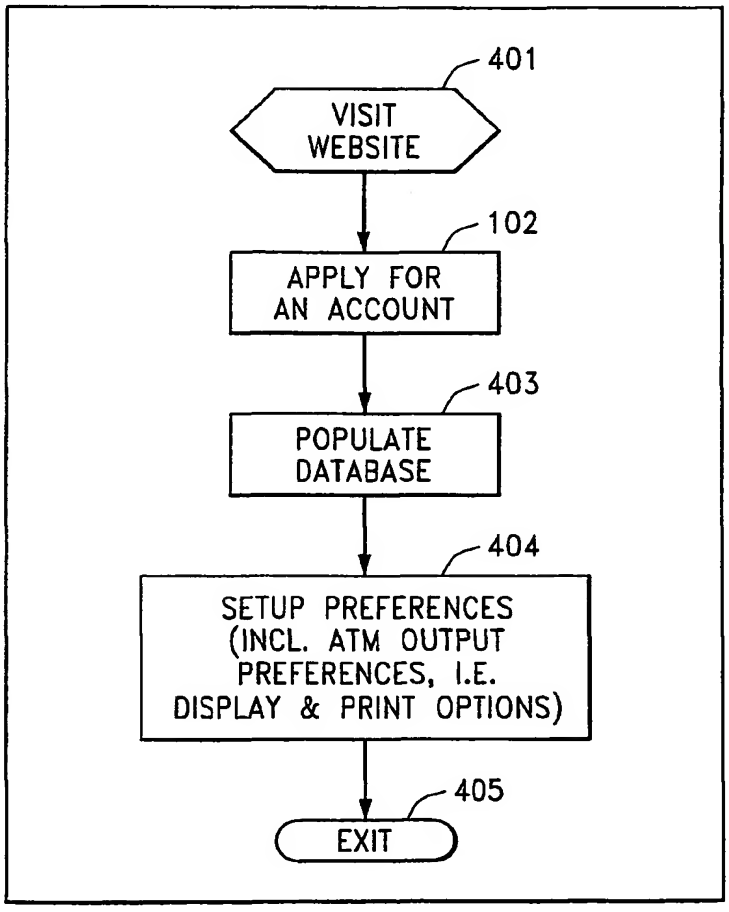

401
VISIT WEBSITE
102
APPLY FOR AN ACCOUNT
403
POPULATE DATABASE
404
SETUP PREFERENCES (INCL. ATM OUTPUT PREFERENCES, I.E. DISPLAY & PRINT OPTIONS)
405
EXIT

FIG. 4

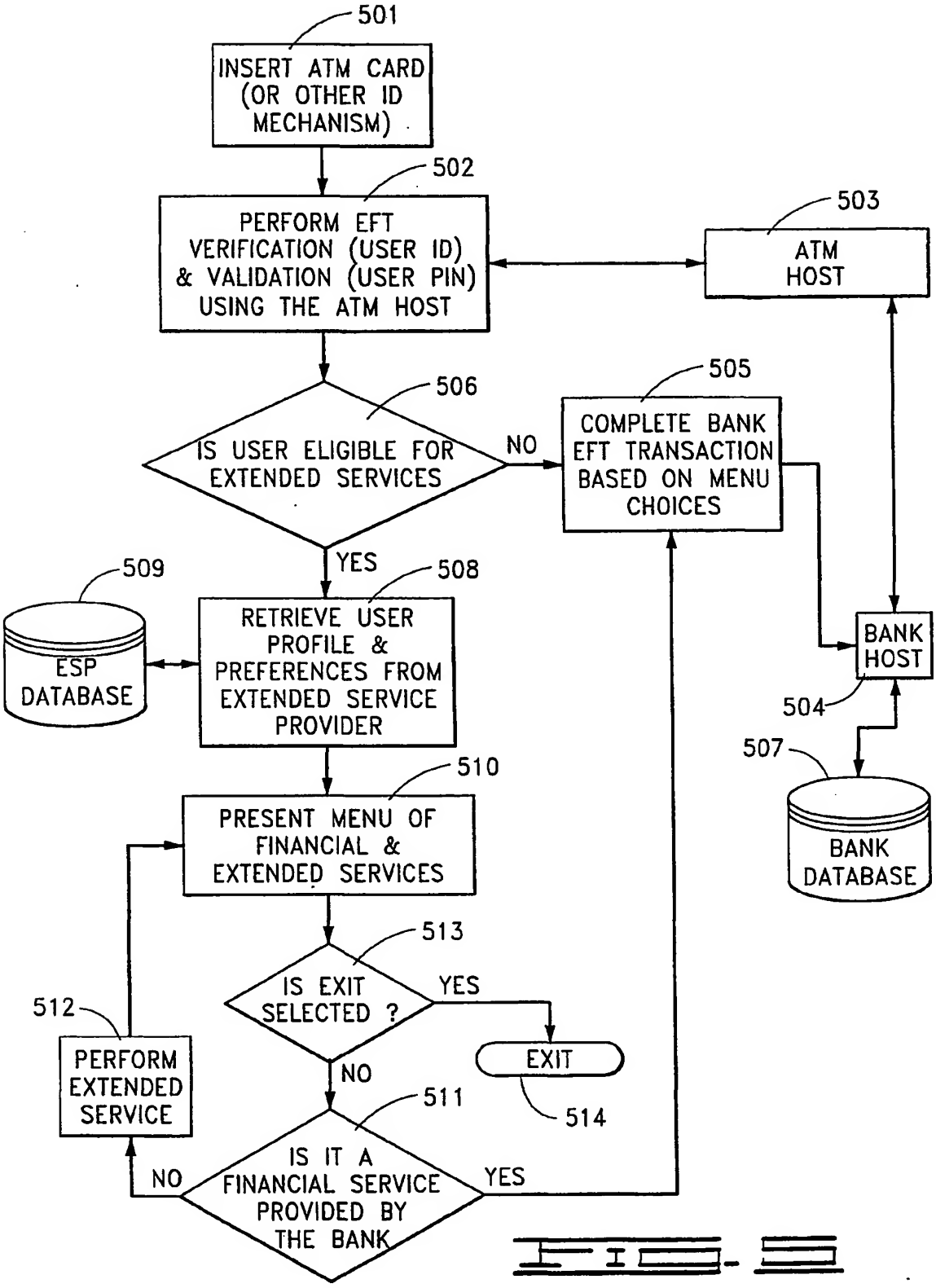

501
INSERT ATM CARD (OR OTHER ID MECHANISM)
502
PERFORM EFT VERIFICATION (USER ID) & VALIDATION (USER PIN) USING THE ATM HOST
503
ATM HOST
506
IS USER ELIGIBLE FOR EXTENDED SERVICES
NO
505
COMPLETE BANK EFT TRANSACTION BASED ON MENU CHOICES
YES
509
ESP DATABASE
508
RETRIEVE USER PROFILE & PREFERENCES FROM EXTENDED SERVICE PROVIDER
BANK HOST
504
507
BANK DATABASE
510
PRESENT MENU OF FINANCIAL & EXTENDED SERVICES
513
IS EXIT SELECTED ?
YES
512
PERFORM EXTENDED SERVICE
EXIT
514
NO
511
IS IT A FINANCIAL SERVICE PROVIDED BY THE BANK
NO
YES

FIG. 5

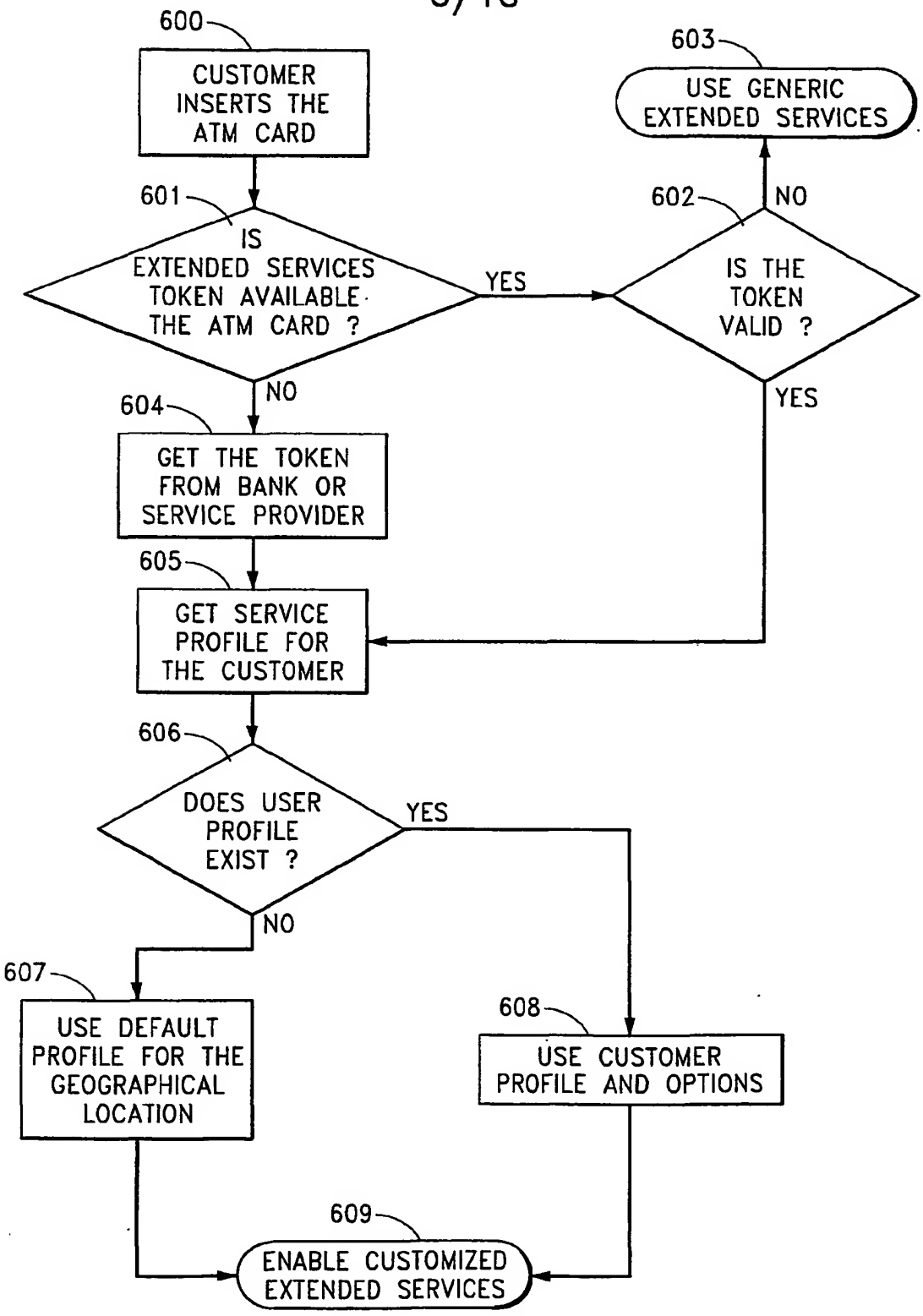
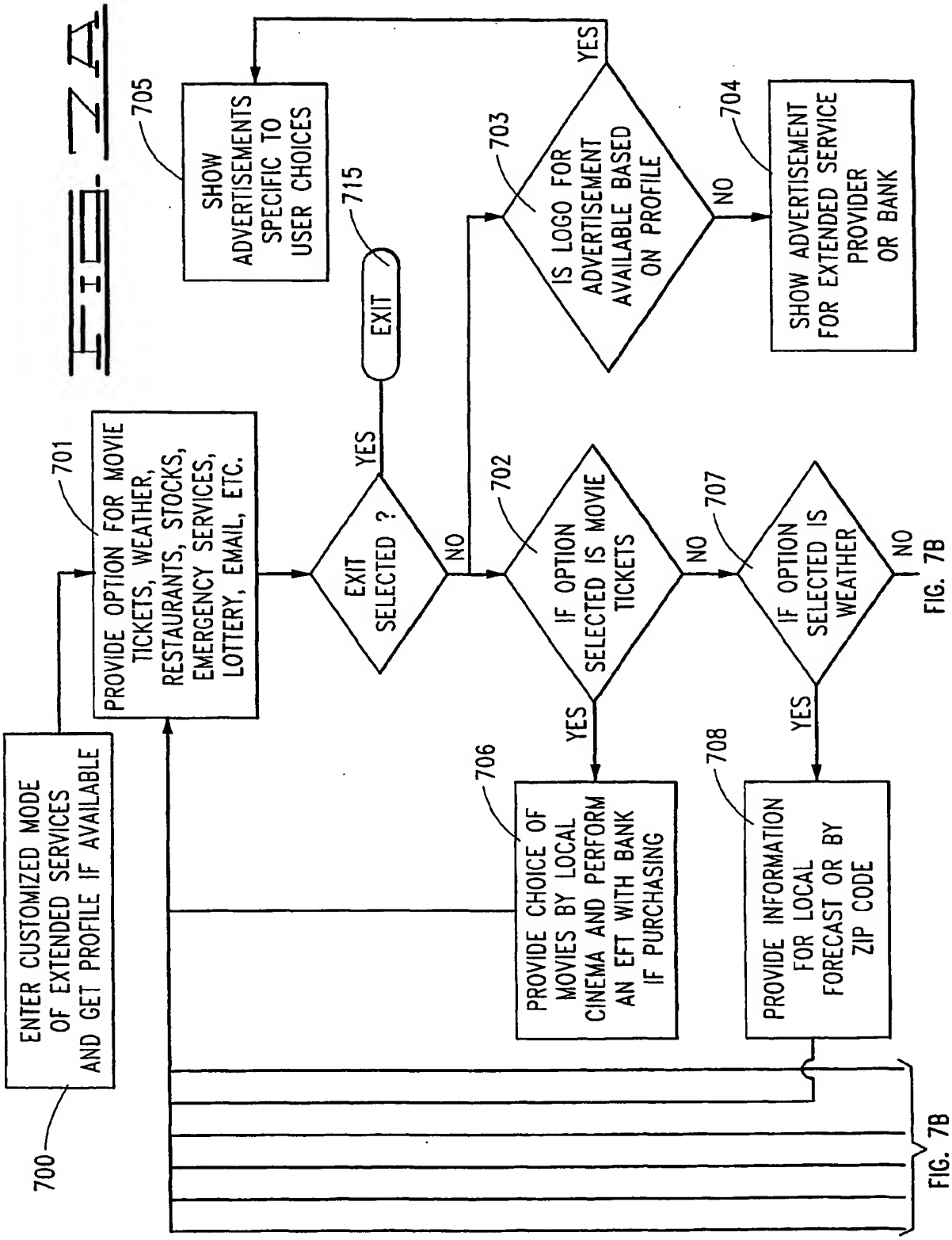

600
CUSTOMER INSERTS THE ATM CARD
601
IS EXTENDED SERVICES TOKEN AVAILABLE THE ATM CARD ?
YES
NO
602
IS THE TOKEN VALID ?
NO
YES
603
USE GENERIC EXTENDED SERVICES
604
GET THE TOKEN FROM BANK OR SERVICE PROVIDER
605
GET SERVICE PROFILE FOR THE CUSTOMER
606
DOES USER PROFILE EXIST ?
YES
NO
607
USE DEFAULT PROFILE FOR THE GEOGRAPHICAL LOCATION
608
USE CUSTOMER PROFILE AND OPTIONS
609
ENABLE CUSTOMIZED EXTENDED SERVICES

FIG. 6


700
ENTER CUSTOMIZED MODE OF EXTENDED SERVICES AND GET PROFILE IF AVAILABLE
701
PROVIDE OPTION FOR MOVIE TICKETS, WEATHER, RESTAURANTS, STOCKS, EMERGENCY SERVICES, LOTTERY, EMAIL, ETC.
EXIT SELECTED ?
YES
NO
715
EXIT
705
SHOW ADVERTISEMENTS SPECIFIC TO USER CHOICES
702
IF OPTION SELECTED IS MOVIE TICKETS
YES
706
PROVIDE CHOICE OF MOVIES BY LOCAL CINEMA AND PERFORM AN EFT WITH BANK IF PURCHASING
703
IS LOGO FOR ADVERTISEMENT AVAILABLE BASED ON PROFILE
YES
NO
704
SHOW ADVERTISEMENT FOR EXTENDED SERVICE PROVIDER OR BANK
707
IF OPTION SELECTED IS WEATHER
YES
NO
708
PROVIDE INFORMATION FOR LOCAL FORECAST OR BY ZIP CODE
FIG. 7A
FIG. 7B

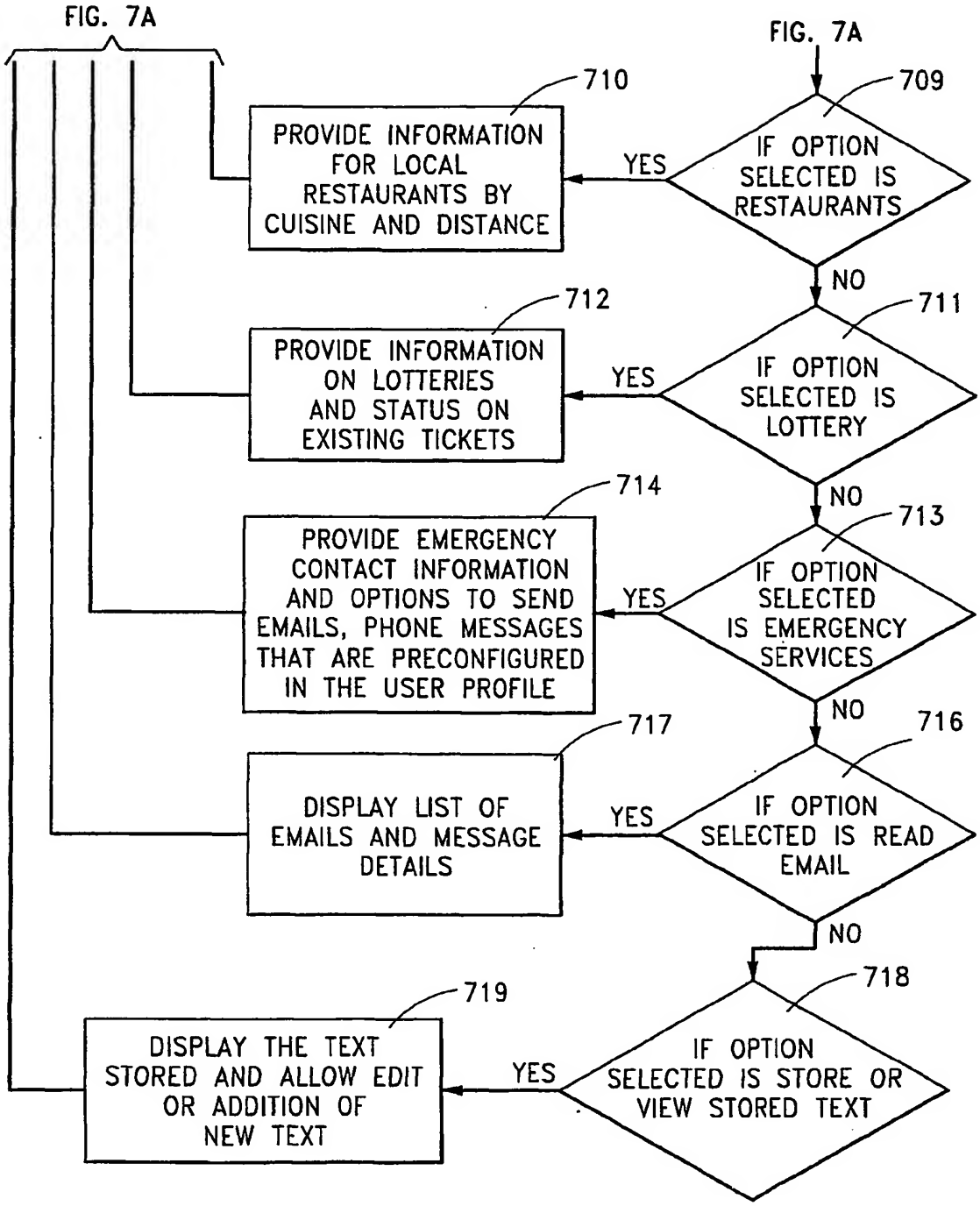
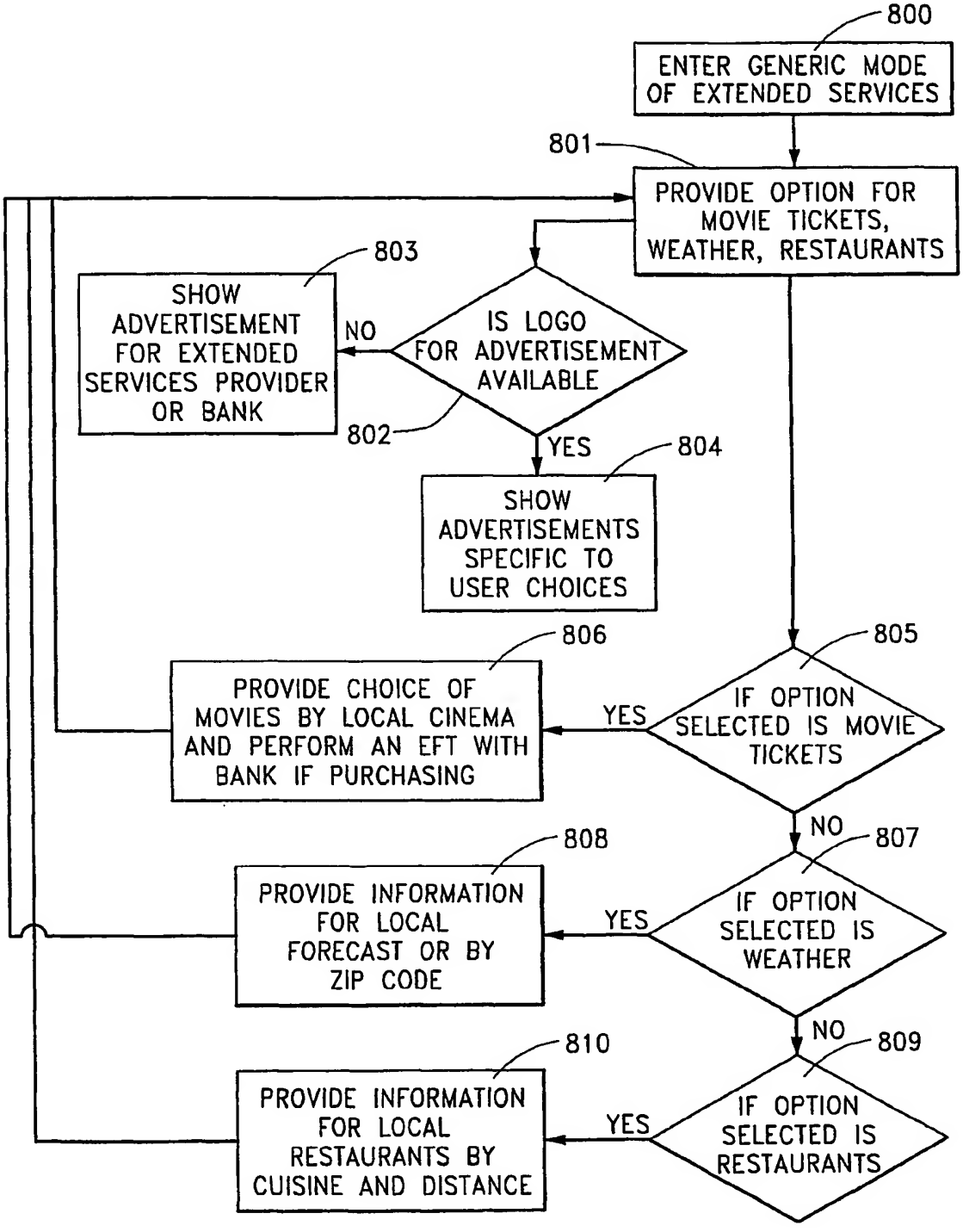
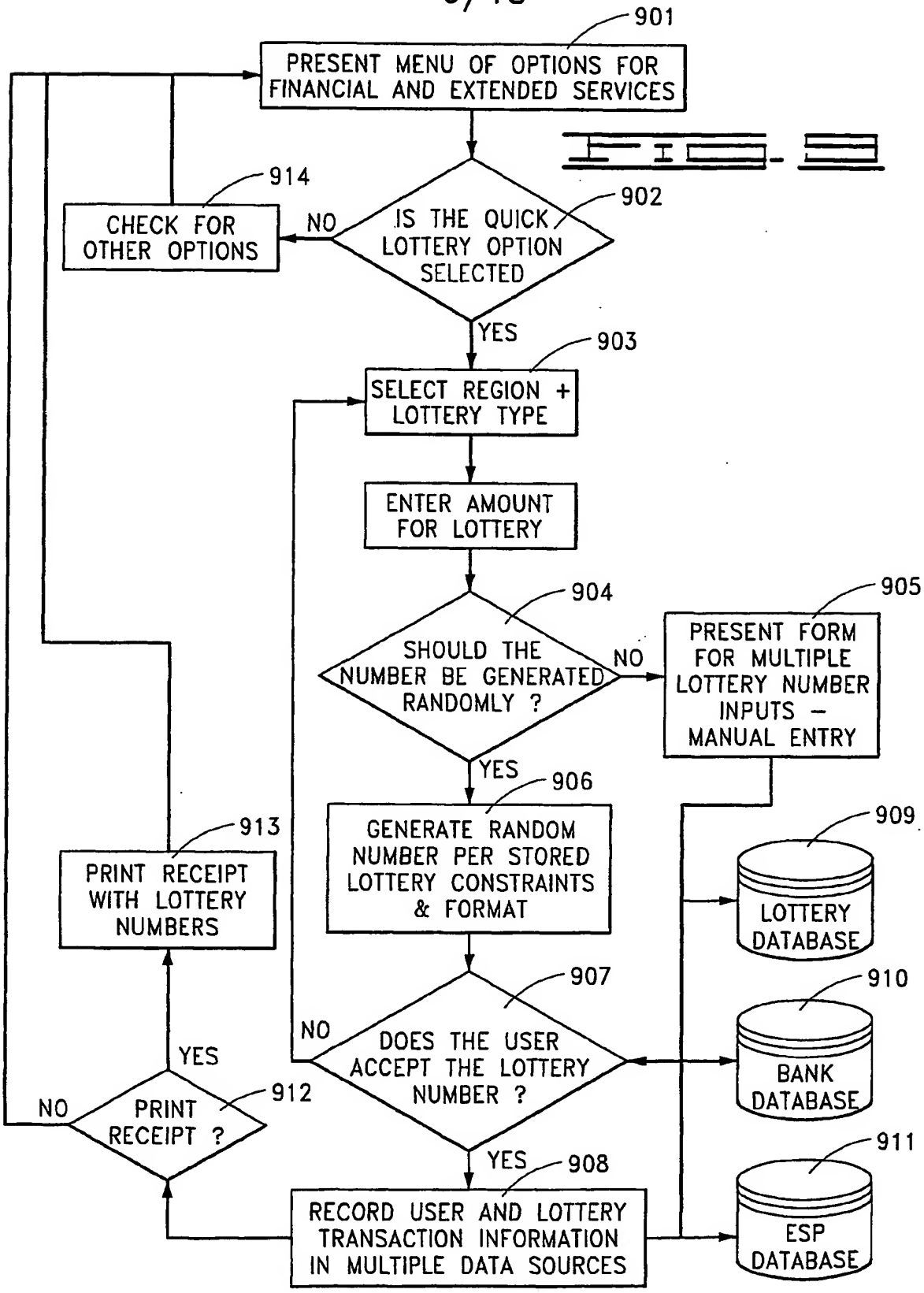


FIG. 7A
FIG. 7A
709
IF OPTION SELECTED IS RESTAURANTS
YES
710
PROVIDE INFORMATION FOR LOCAL RESTAURANTS BY CUISINE AND DISTANCE
NO
711
IF OPTION SELECTED IS LOTTERY
YES
712
PROVIDE INFORMATION ON LOTTERIES AND STATUS ON EXISTING TICKETS
NO
713
IF OPTION SELECTED IS EMERGENCY SERVICES
YES
714
PROVIDE EMERGENCY CONTACT INFORMATION AND OPTIONS TO SEND EMAILS, PHONE MESSAGES THAT ARE PRECONFIGURED IN THE USER PROFILE
NO
716
IF OPTION SELECTED IS READ EMAIL
YES
717
DISPLAY LIST OF EMAILS AND MESSAGE DETAILS
NO
718
IF OPTION SELECTED IS STORE OR VIEW STORED TEXT
YES
719
DISPLAY THE TEXT STORED AND ALLOW EDIT OR ADDITION OF NEW TEXT

FIG. 7B


800
ENTER GENERIC MODE OF EXTENDED SERVICES
801
PROVIDE OPTION FOR MOVIE TICKETS, WEATHER, RESTAURANTS
803
SHOW ADVERTISEMENT FOR EXTENDED SERVICES PROVIDER OR BANK
NO
IS LOGO FOR ADVERTISEMENT AVAILABLE
802
YES
804
SHOW ADVERTISEMENTS SPECIFIC TO USER CHOICES
806
PROVIDE CHOICE OF MOVIES BY LOCAL CINEMA AND PERFORM AN EFT WITH BANK IF PURCHASING
YES
805
IF OPTION SELECTED IS MOVIE TICKETS
NO
808
PROVIDE INFORMATION FOR LOCAL FORECAST OR BY ZIP CODE
YES
807
IF OPTION SELECTED IS WEATHER
NO
810
PROVIDE INFORMATION FOR LOCAL RESTAURANTS BY CUISINE AND DISTANCE
YES
809
IF OPTION SELECTED IS RESTAURANTS


901
PRESENT MENU OF OPTIONS FOR FINANCIAL AND EXTENDED SERVICES
902
IS THE QUICK LOTTERY OPTION SELECTED
NO
914
CHECK FOR OTHER OPTIONS
YES
903
SELECT REGION + LOTTERY TYPE
ENTER AMOUNT FOR LOTTERY
904
SHOULD THE NUMBER BE GENERATED RANDOMLY ?
NO
905
PRESENT FORM FOR MULTIPLE LOTTERY NUMBER INPUTS – MANUAL ENTRY
YES
906
GENERATE RANDOM NUMBER PER STORED LOTTERY CONSTRAINTS & FORMAT
909
LOTTERY DATABASE
907
DOES THE USER ACCEPT THE LOTTERY NUMBER ?
NO
910
BANK DATABASE
YES
913
PRINT RECEIPT WITH LOTTERY NUMBERS
912
PRINT RECEIPT ?
NO
YES
908
RECORD USER AND LOTTERY TRANSACTION INFORMATION IN MULTIPLE DATA SOURCES
911
ESP DATABASE

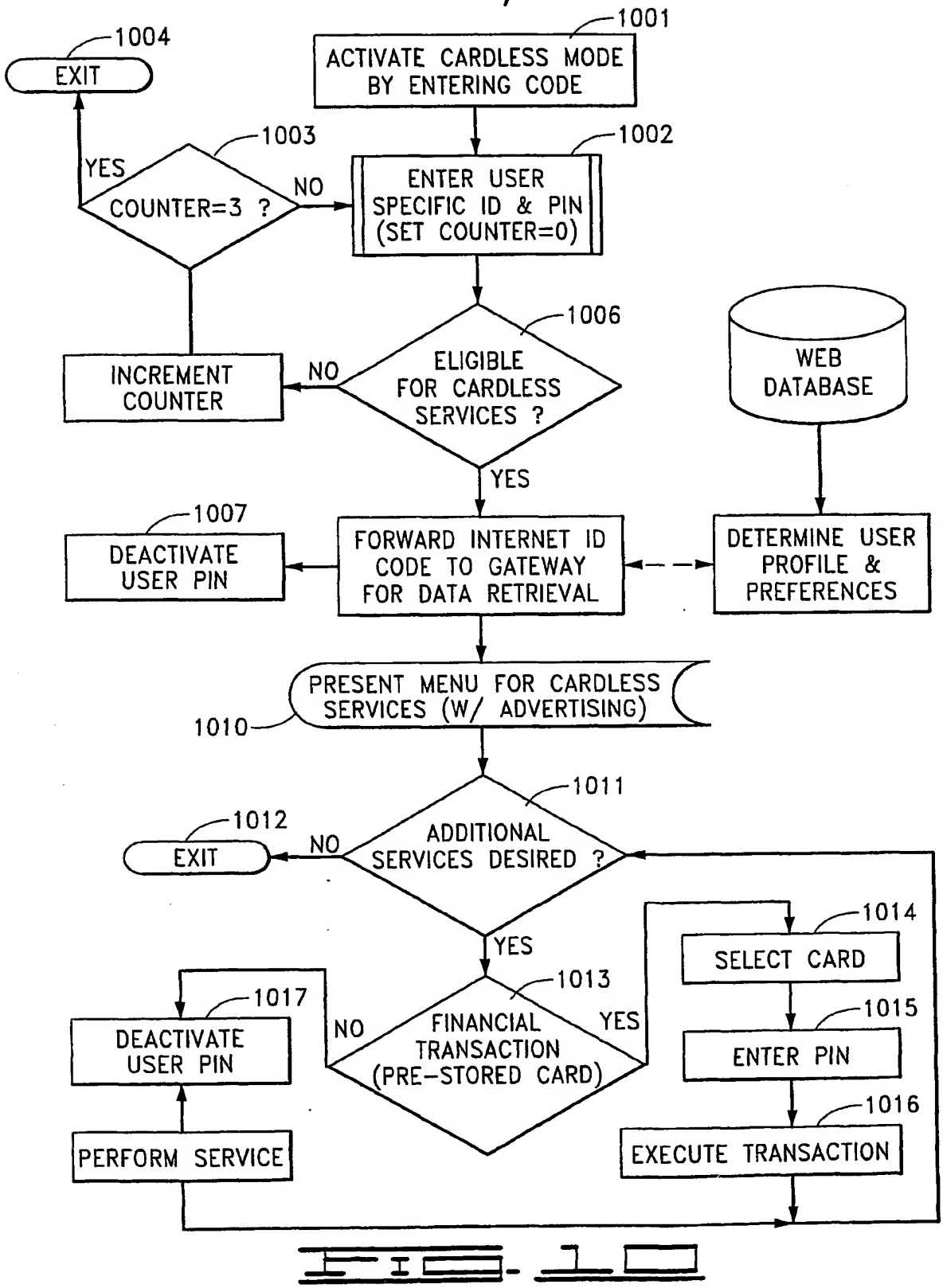

1001
ACTIVATE CARDLESS MODE BY ENTERING CODE
1002
ENTER USER SPECIFIC ID & PIN (SET COUNTER=0)
1003
COUNTER=3 ?
YES
NO
1004
EXIT
INCREMENT COUNTER
1006
ELIGIBLE FOR CARDLESS SERVICES ?
NO
YES
WEB DATABASE
1007
DEACTIVATE USER PIN
FORWARD INTERNET ID CODE TO GATEWAY FOR DATA RETRIEVAL
DETERMINE USER PROFILE & PREFERENCES
1010
PRESENT MENU FOR CARDLESS SERVICES (W/ ADVERTISING)
1011
ADDITIONAL SERVICES DESIRED ?
1012
EXIT
NO
YES
1013
FINANCIAL TRANSACTION (PRE-STORED CARD)
NO
YES
1014
SELECT CARD
1015
ENTER PIN
1016
EXECUTE TRANSACTION
1017
DEACTIVATE USER PIN
PERFORM SERVICE

FIG. 10

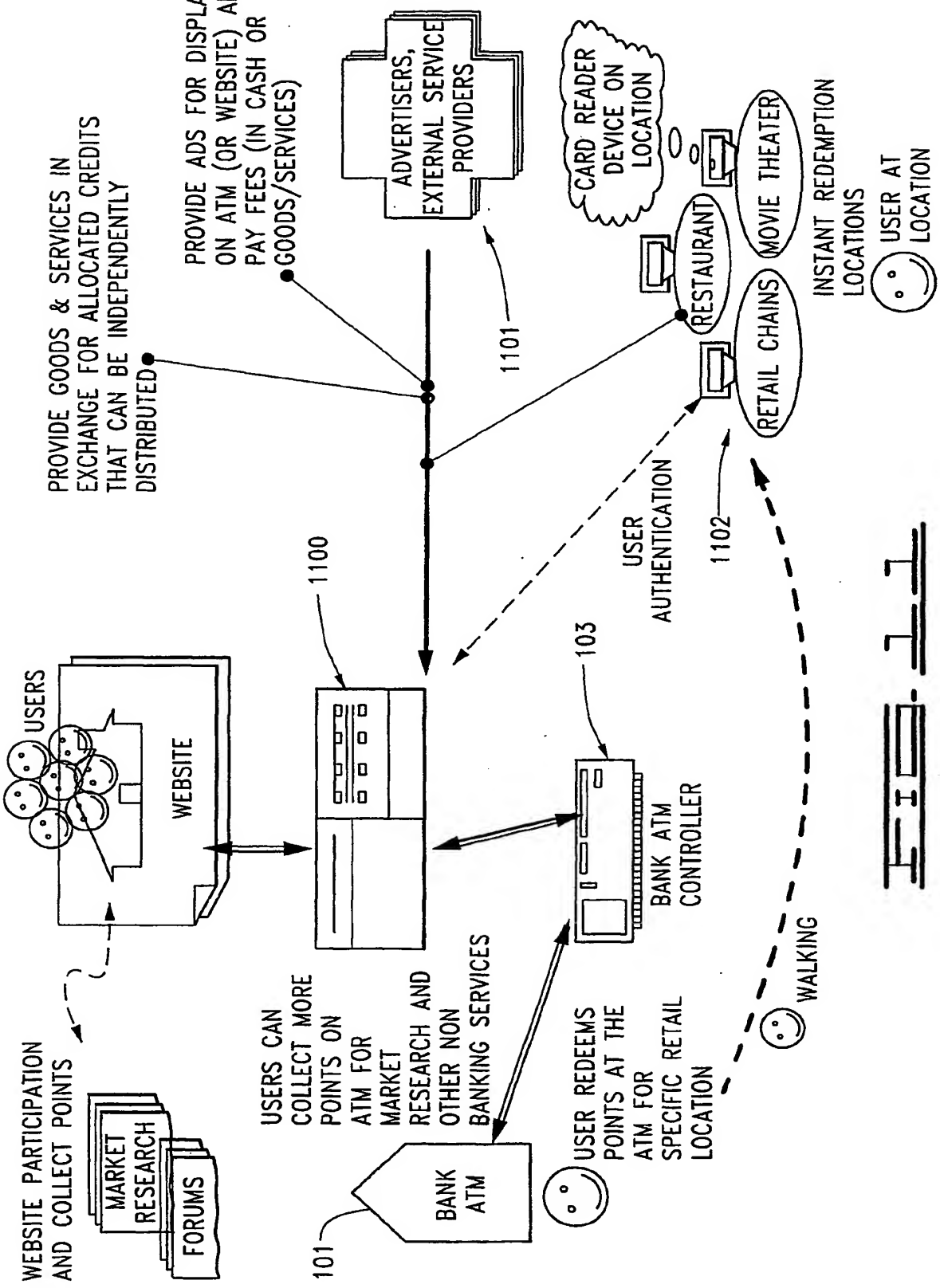

PROVIDE GOODS & SERVICES IN EXCHANGE FOR ALLOCATED CREDITS THAT CAN BE INDEPENDENTLY DISTRIBUTED
PROVIDE ADS FOR DISPLAY ON ATM (OR WEBSITE) AND PAY FEES (IN CASH OR GOODS/SERVICES)
ADVERTISERS, EXTERNAL SERVICE PROVIDERS
1101
CARD READER DEVICE ON LOCATION
RESTAURANT
MOVIE THEATER
RETAIL CHAINS
INSTANT REDEMPTION LOCATIONS
USER AT LOCATION
USER AUTHENTICATION
1102
1100
103
USERS
WEBSITE
BANK ATM CONTROLLER
WEBSITE PARTICIPATION AND COLLECT POINTS
MARKET RESEARCH
FORUMS
USERS CAN COLLECT MORE POINTS ON ATM FOR MARKET RESEARCH AND OTHER NON BANKING SERVICES
USER REDEEMS POINTS AT THE ATM FOR SPECIFIC RETAIL LOCATION
WALKING
BANK ATM
101

FIG. 11

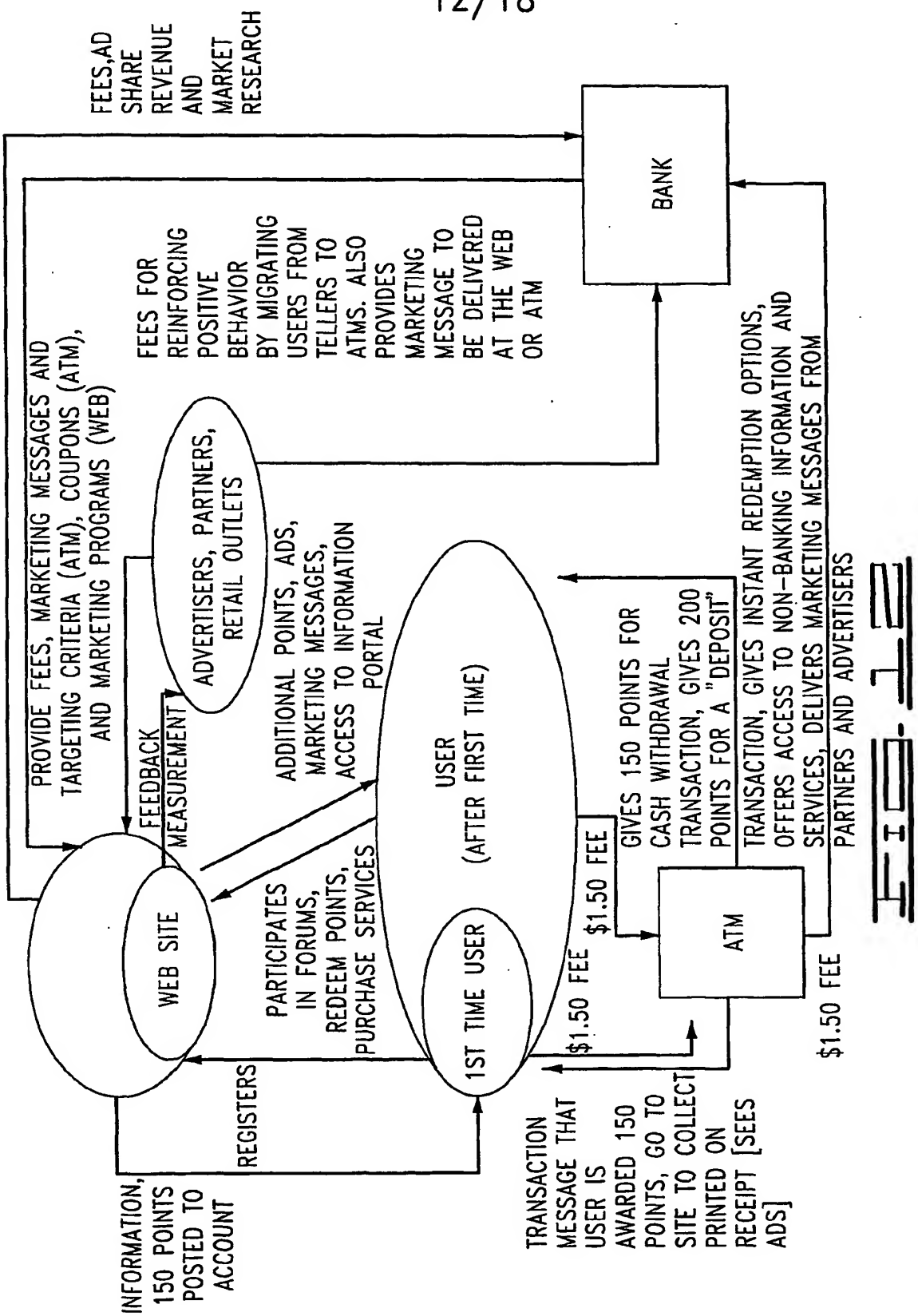
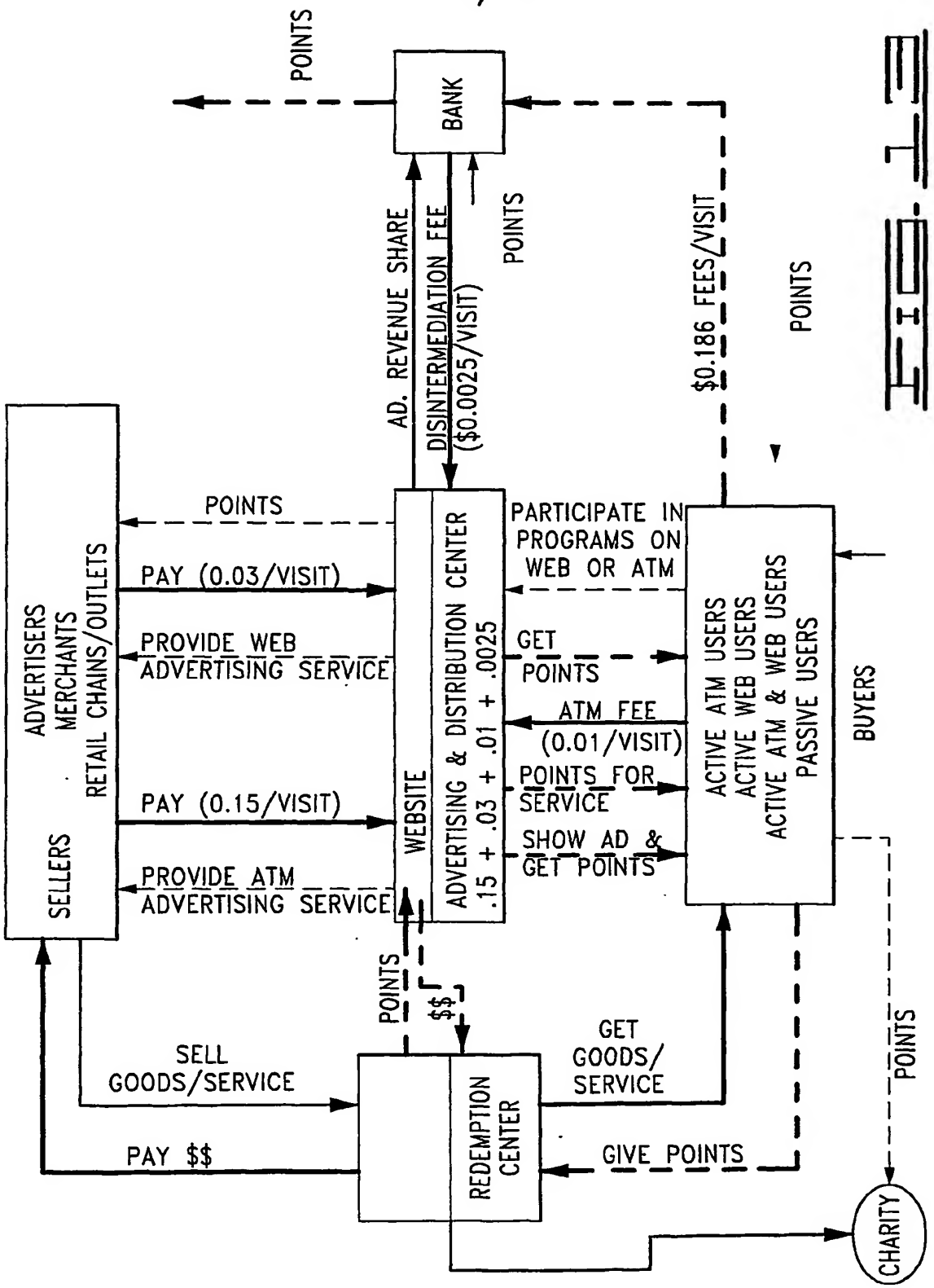

FEES,AD SHARE REVENUE AND MARKET RESEARCH
BANK
FEES FOR REINFORCING POSITIVE BEHAVIOR BY MIGRATING USERS FROM TELLERS TO ATMS. ALSO PROVIDES MARKETING MESSAGE TO BE DELIVERED AT THE WEB OR ATM
PROVIDE FEES, MARKETING MESSAGES AND TARGETING CRITERIA (ATM), COUPONS (ATM), AND MARKETING PROGRAMS (WEB)
ADVERTISERS, PARTNERS, RETAIL OUTLETS
FEEDBACK MEASUREMENT
ADDITIONAL POINTS, ADS, MARKETING MESSAGES, ACCESS TO INFORMATION PORTAL
USER (AFTER FIRST TIME)
WEB SITE
PARTICIPATES IN FORUMS, REDEEM POINTS, PURCHASE SERVICES
1ST TIME USER
GIVES 150 POINTS FOR CASH WITHDRAWAL TRANSACTION, GIVES 200 POINTS FOR A "DEPOSIT"
$1.50 FEE
ATM
TRANSACTION, GIVES INSTANT REDEMPTION OPTIONS, OFFERS ACCESS TO NON-BANKING INFORMATION AND SERVICES, DELIVERS MARKETING MESSAGES FROM PARTNERS AND ADVERTISERS
$1.50 FEE
REGISTERS
INFORMATION, 150 POINTS POSTED TO ACCOUNT
TRANSACTION MESSAGE THAT USER IS AWARDED 150 POINTS, GO TO SITE TO COLLECT PRINTED ON RECEIPT [SEES ADS]

FIG. 12


POINTS
BANK
AD. REVENUE SHARE
DISINTERMEDIATION FEE
($0.0025/VISIT)
POINTS
$0.186 FEES/VISIT
POINTS
ADVERTISERS
MERCHANTS
RETAIL CHAINS/OUTLETS
SELLERS
POINTS
PAY (0.03/VISIT)
PROVIDE WEB
ADVERTISING SERVICE
PAY (0.15/VISIT)
PROVIDE ATM
ADVERTISING SERVICE
WEBSITE
ADVERTISING & DISTRIBUTION CENTER
.15 + .03 + .01 + .0025
PARTICIPATE IN
PROGRAMS ON
WEB OR ATM
GET
POINTS
ATM FEE
(0.01/VISIT)
POINTS FOR
SERVICE
SHOW AD &
GET POINTS
ACTIVE ATM USERS
ACTIVE WEB USERS
ACTIVE ATM & WEB USERS
PASSIVE USERS
BUYERS
POINTS
$$
SELL
GOODS/SERVICE
PAY $$
REDEMPTION
CENTER
GET
GOODS/
SERVICE
GIVE POINTS
POINTS
CHARITY

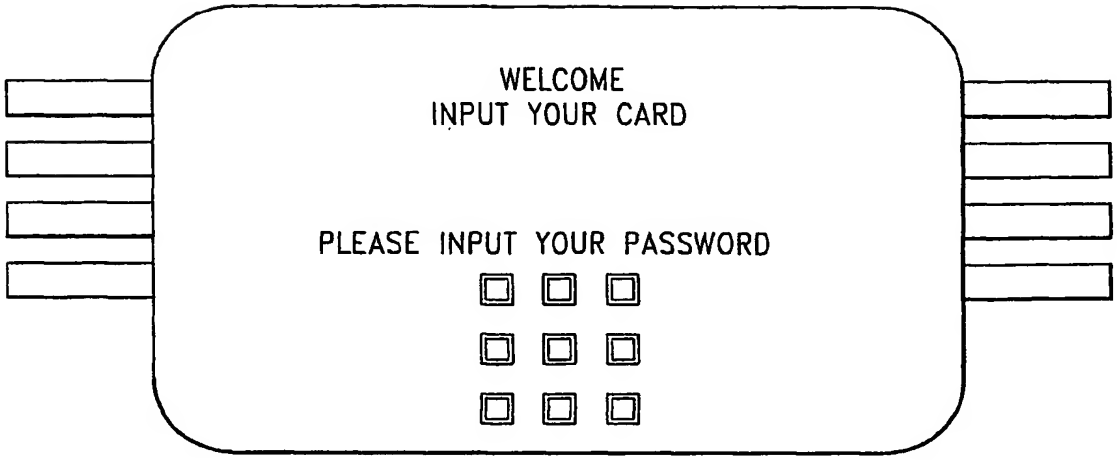

WELCOME
INPUT YOUR CARD
PLEASE INPUT YOUR PASSWORD

FIG. 14

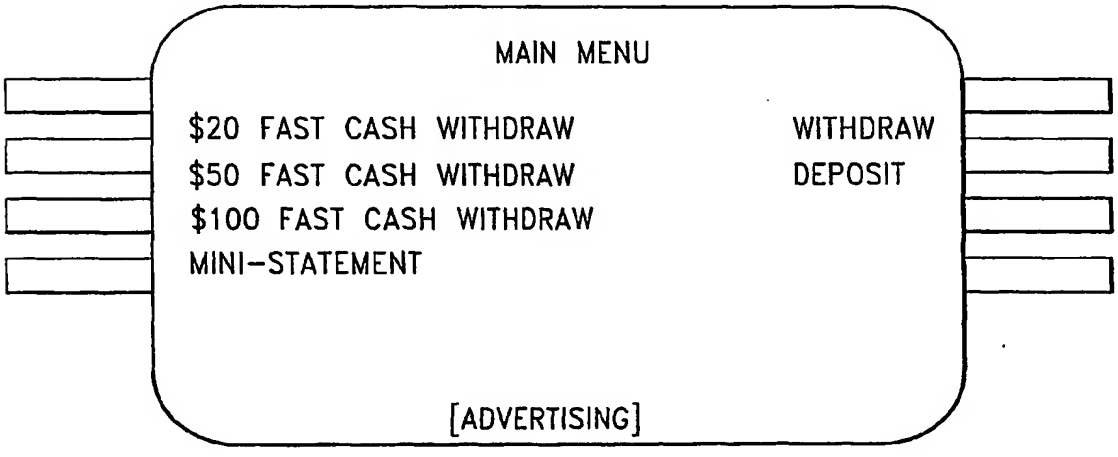

MAIN MENU
$20 FAST CASH WITHDRAW
$50 FAST CASH WITHDRAW
$100 FAST CASH WITHDRAW
MINI-STATEMENT
WITHDRAW
DEPOSIT
[ADVERTISING]

FIG. 15

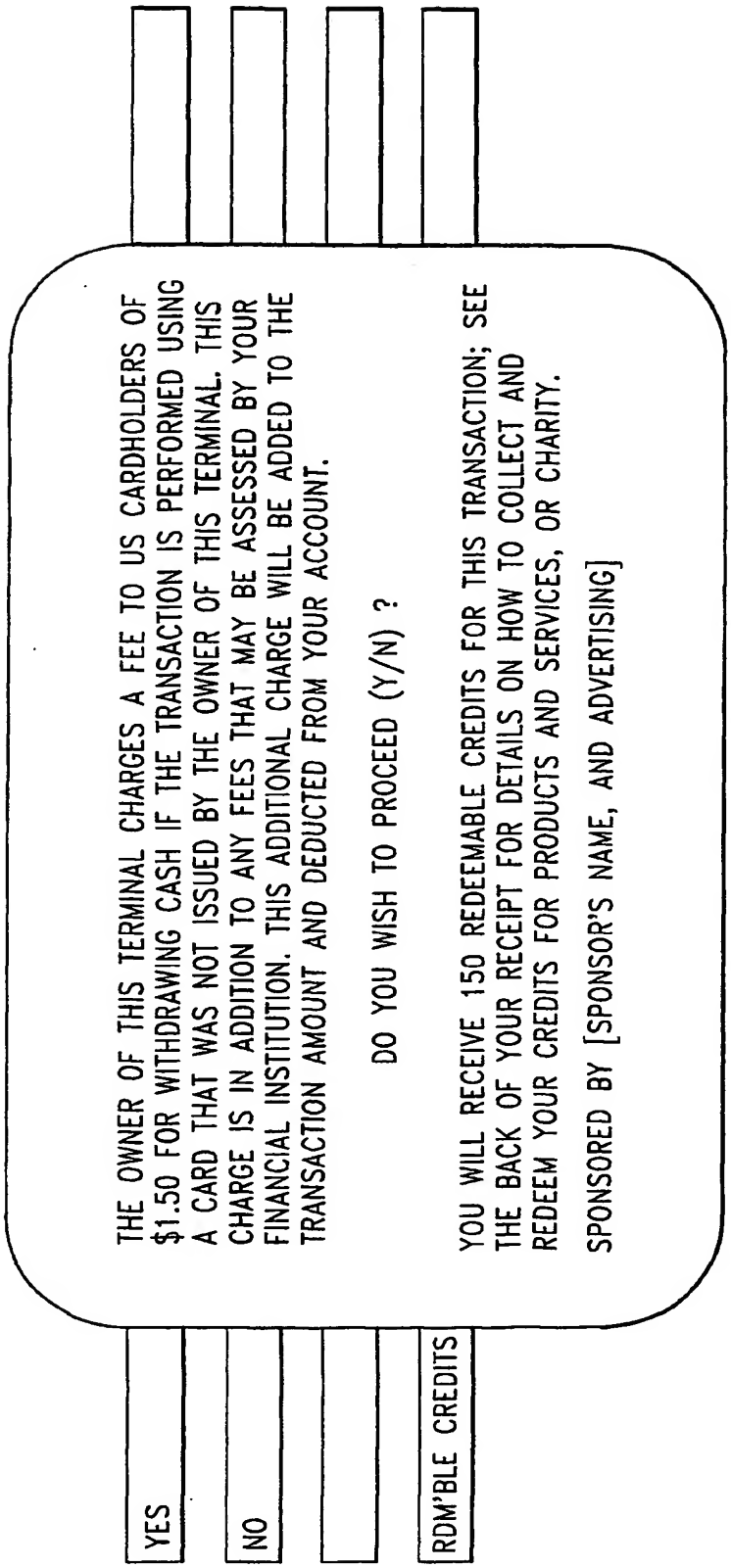

THE OWNER OF THIS TERMINAL CHARGES A FEE TO US CARDHOLDERS OF $1.50 FOR WITHDRAWING CASH IF THE TRANSACTION IS PERFORMED USING A CARD THAT WAS NOT ISSUED BY THE OWNER OF THIS TERMINAL. THIS CHARGE IS IN ADDITION TO ANY FEES THAT MAY BE ASSESSED BY YOUR FINANCIAL INSTITUTION. THIS ADDITIONAL CHARGE WILL BE ADDED TO THE TRANSACTION AMOUNT AND DEDUCTED FROM YOUR ACCOUNT.
DO YOU WISH TO PROCEED (Y/N) ?
YOU WILL RECEIVE 150 REDEEMABLE CREDITS FOR THIS TRANSACTION; SEE THE BACK OF YOUR RECEIPT FOR DETAILS ON HOW TO COLLECT AND REDEEM YOUR CREDITS FOR PRODUCTS AND SERVICES, OR CHARITY.
SPONSORED BY [SPONSOR'S NAME, AND ADVERTISING]
YES
NO
RDM'BLE CREDITS

FIG. 15

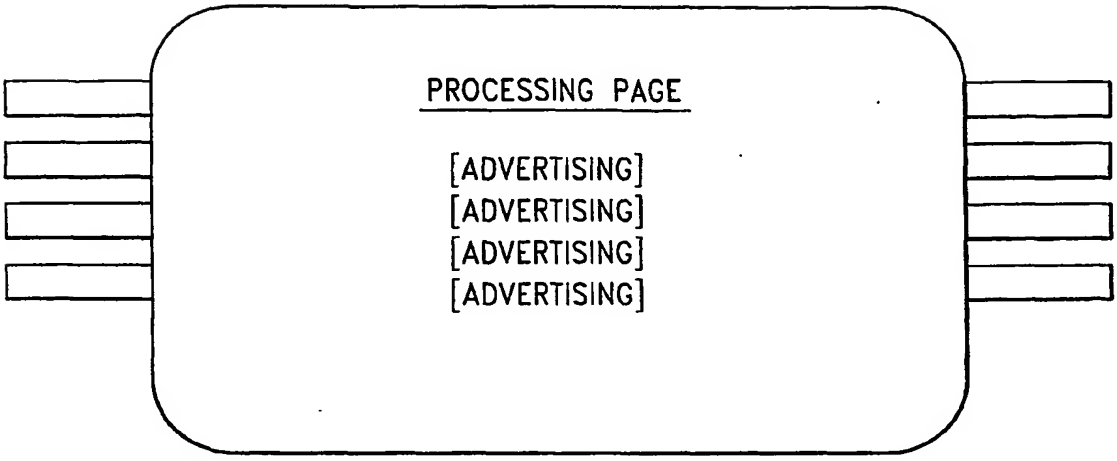

PROCESSING PAGE
[ADVERTISING]
[ADVERTISING]
[ADVERTISING]
[ADVERTISING]

FIG. 17

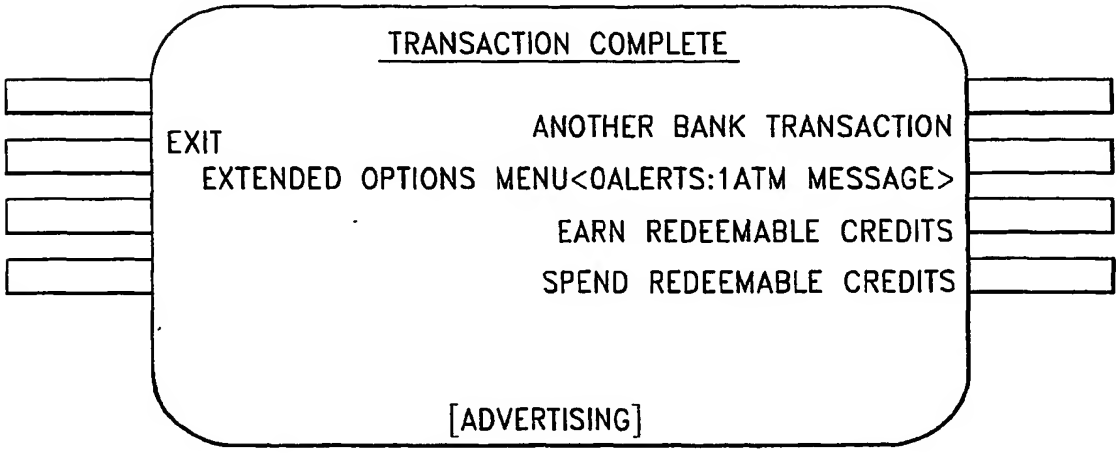

TRANSACTION COMPLETE
EXIT
ANOTHER BANK TRANSACTION
EXTENDED OPTIONS MENU<0ALERTS:1ATM MESSAGE>
EARN REDEEMABLE CREDITS
SPEND REDEEMABLE CREDITS
[ADVERTISING]

FIG. 18

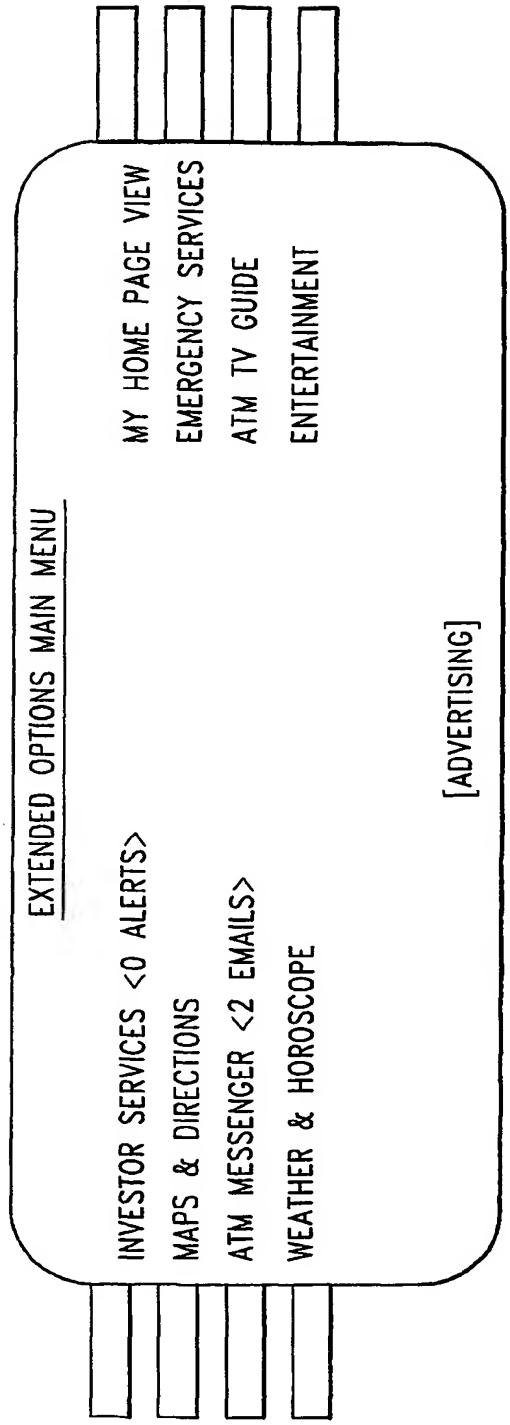


FIG. 19

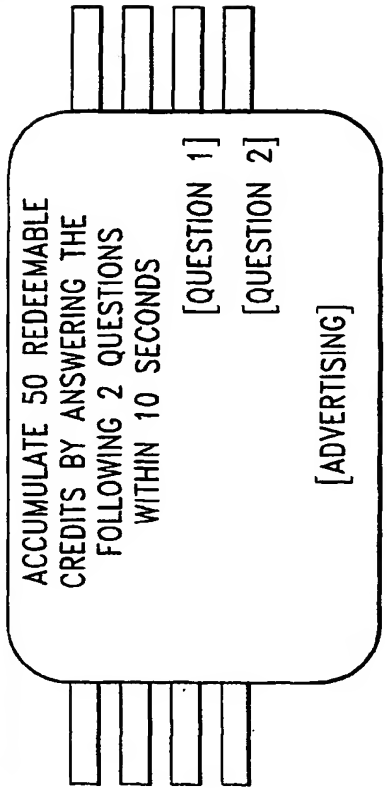


FIG. 21

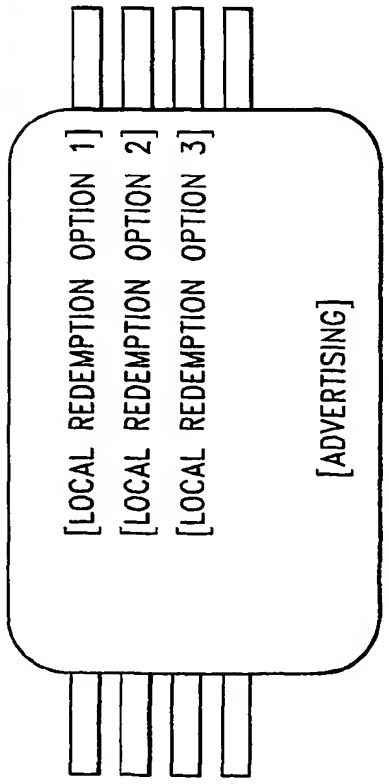


FIG. 22

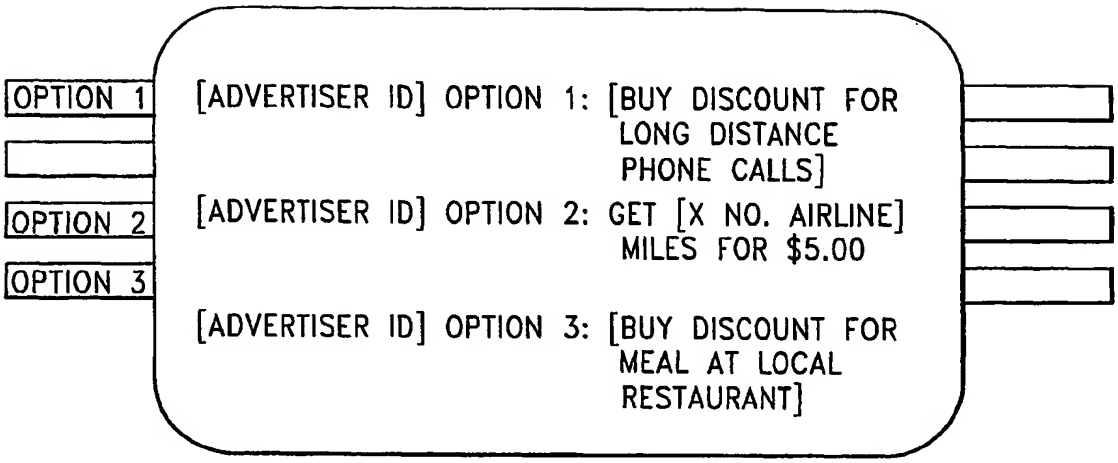

OPTION 1
OPTION 2
OPTION 3
[ADVERTISER ID] OPTION 1: [BUY DISCOUNT FOR LONG DISTANCE PHONE CALLS]
[ADVERTISER ID] OPTION 2: GET [X NO. AIRLINE] MILES FOR $5.00
[ADVERTISER ID] OPTION 3: [BUY DISCOUNT FOR MEAL AT LOCAL RESTAURANT]

FIG. 20

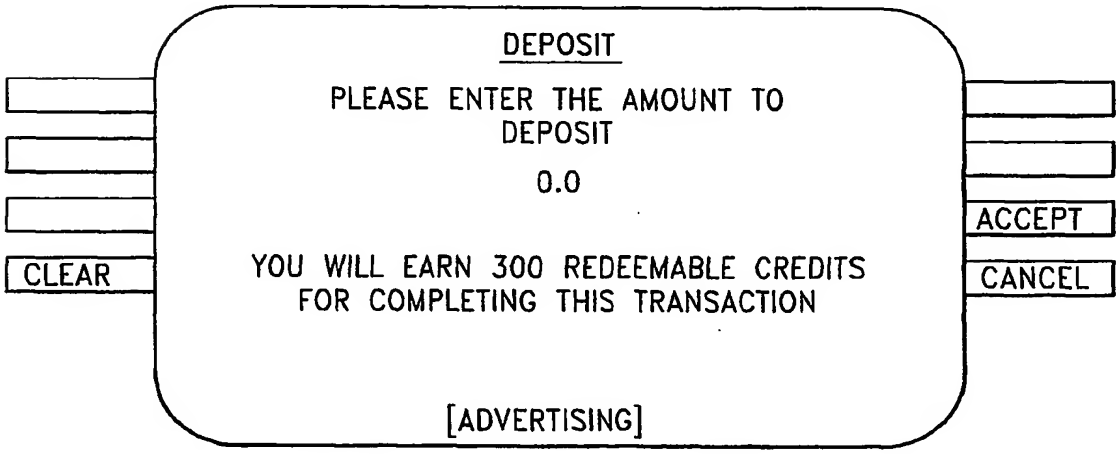

DEPOSIT
PLEASE ENTER THE AMOUNT TO DEPOSIT
0.0
YOU WILL EARN 300 REDEEMABLE CREDITS FOR COMPLETING THIS TRANSACTION
[ADVERTISING]
CLEAR
ACCEPT
CANCEL

FIG. 23

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US01/07921

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 17/60
US CL : 705/43, 42, 14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 705/43, 42, 14

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Internet: Amazon.com & FidelityInvestments.com

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y, P	US 6,085,177 A (SEMPLE et al) 04 July 2000 (4.07.2000), col 2, lines 56-67, col 3, lines 1-67, col 4, lines 1-67, col 5, lines 1-67, col 6, lines 1-67, col 7, lines 1-28, col 8, lins 1-26.	1-10, 13-41
Y, P	US 6,061,660 A (EGGLESTON et al) 09 May 2000 (9.05.2000), col 5, lines 45-67, col 6 lines 1-67, col 7, lines 1-67, col 8, lines 1-55.	7, 27-30, 34-41
Y, P	US 6,073,119 A (BORNEMISZA-WAHR) 06 June 2000 (6.06.2000), col 2, lines 10-67.	1-10, 13-29, 31-41
Y	Internet, Amazon.com, personal information repository, copyright 1996.	1-6, 8
Y	Internet, FidelityInvestments.com, personal financial information, copyright 1998.	1-6, 8-9

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search
08 May 2001 (08.05.2001)

Date of mailing of the international search report
13 JUN 2001

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Telephone No. 703-305-5416

Form PCT/ISA/210 (second sheet) (July 1998)

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/07921

Continuation of Item 4 of the first sheet:
too long. New title: Providing Internet Services To Automated Teller Machine